INDUSTRIAL PROPERTY TAXATION TASK FORCE REPORT

VOLUME II

TECHNICAL REPORT

August 1989

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Submitted to:

The Ministers of Economic Development & Trade,
Municipal Affairs, and Education

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INTRODUCTION

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The Task Force consists of representatives from industry and local government, namely, Alberta Urban Municipalities Association, Alberta Association of Municipal Districts and Countries, Improvement Districts Association of Alberta, and the Alberta School Trustees Association, and the Alberta Government (Economic Development & Trade, Municipal Affairs, Education, Treasury, and Forestry),.

Specific matters to be considered by the Task Force include:

o any issues/problems relevant to industrial property assessment and taxation;
o municipal and school concerns as they relate to property taxation issues;
o Alberta property tax history, including an examination of equivalent levies on capital assets in other provinces; and
o other tax burdens on industry in Alberta relative to other provinces, including corporate income taxes, sales/commodity taxes, and payroll taxes.

Members of the Task Force appointed a special Working Group to provide factual information and analysis on the key issues/problems identified by the Task Force. This Technical Report presents the findings of the Working Group, and was used as a basis for developing the Task Force Report to the Ministers.

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1.0 OVERVIEW OF INDUSTRY TAXATION AND REFORM IN ALBERTA

1.1 MUNICIPAL PROPERTY ASSESSMENT AND TAXATION

All property is subject to assessment and taxation in Alberta. Property includes both land and improvements.

Assessable improvements include:

- o buildings and structures and anything affixed to the building;
- o machinery and equipment used in processing or manufacturing, the production and transmission of natural resources, the transmission or receiving of communication signals;
- o linear properties such as pipelines, electrical transmission lines, cable television lines, telephone installation (liable to grant-in-lieu); and
- o electrical generation facilities.

Land

Non-agricultural land is assessed at 65% of the fair market value.

Buildings & Structures

Buildings and structures are currently assessed at 65% of their depreciated replacement cost. In 1977, the Province went to a "one to one" concept whereby the assessment of buildings was set at the same level of value as that for land.

Machinery and Equipment

Machinery and equipment (M & E) used in manufacturing and processing is currently assessed at 50% of its depreciated replacement cost.

The manner in which M & E is assessed in Alberta has undergone a number of reforms over the years which has altered the level of M & E assessment relative to other property. These reforms have resulted in significant shifts in the level of M & E taxes paid by individual companies, and in tax revenues collected by the municipalities in which these plants are located. A brief chronological history of these changes is presented below.

Pre 1960 - not assessed.

1960 - assessed at full level of other improvements.

1962 - assessed level reduced to 1/2 rate of other improvements.

1981 - assessed level moved to the same rate as other improvements. (This only applied when the municipality completed a new general assessment, consequently the change was implemented over a number of years with some municipalities still at the 1/2 rate.)

1985 - this was the first year of a three year phase-down in which the assessed level was reduced by about 8% per year (assessed level moved from 65% to 60% for 1985). In addition:

- o self-provided water conveyance systems and domestic sewer services were exempted;
- o all machinery and equipment received an immediate depreciation allowance to reflect a level of 75% remaining; and
- o a limit was set on the maximum amount of depreciation which could be given at 40%.

1986 - second year of phase-down (assessed level moved from 60% to 55%).

1987 - third year of phase-down (assessed level moved from 55% to 50%).

The net result of these changes (without the effect of exemption for self provided services) is that new investment in machinery and equipment is now assessed at about 60% of the level of other commerce.

Municipalities in Alberta may tax all or a portion of M & E assessment, or fully exempt M & E from taxation. Some of the larger urban centers (Calgary, Edmonton, Lethbridge, Red Deer, and St. Albert) have fully exempted M & E from taxation. However, all rural municipalities tax M & E, and many depend on it as a major source of tax revenue.

In 1986, the total taxes collected from M & E assessment in Alberta amounted to $115.6 million. On a province-wide basis, the M & E tax represented a relatively small component (less than 7%) of the total property tax revenue collected by Alberta municipalities. However, in some municipalities, where most capital intensive manufacturing and processing industries are located, M & E taxes account for a substantially larger proportion of total property tax revenue - as high as 50% in some instances. A breakdown of the M & E tax by type of municipal jurisdiction is presented on Table 1.1.

Table 1.1

Machinery and Equipment Tax
As a Percentage of Total Property Taxes - Alberta, 1987

	M & E Taxes ($'000)	Total Property[1] Tax ($'000)	M & E as a Percentage of Total Taxes
Cities	24,532	1,256,150	2.0
Towns	2,636	169,991	1.6
Villages	91	26,616	0.3
Counties	44,430	242,364	18.3
Municipal Districts	19,052	100,872	18.9
Improvement Districts	32,824	86,807	37.8
"Special Areas"	630	10,334	6.1
TOTAL	**124,195**	**1,893,134**	**6.6**

1 Includes Municipal and Education Property Taxes

Source: Alberta Municipal Affairs

1.2 LOCAL BUSINESS TAX

Municipal councils have the option of implementing a business tax. Business assessment may be based on the gross rental value or upon the floor space of the premises. If based on rental value, the tax may not be greater than 25% of assessed value; if upon floor space, the business tax shall not be greater than the property tax applicable to the land.

The municipalities may provide for a business tax in addition to assessing and taxing machinery and equipment. However, when machinery and equipment is subject to a property tax, no business tax may be levied against the same premises.

The business tax is primarily utilized by the urban municipalities in Alberta. Some of the larger urban centres, i.e. Edmonton, Calgary, Lethbridge, Red Deer, and St. Albert utilize a business tax, but have fully exempted machinery and equipment from taxation. Only one rural municipality (M.D. of Kneehill) has a business tax.

The following table presents a list of Alberta municipalities with a business tax, and the level of business taxes paid in 1986 in proportion to total property taxes.

Table 1.2

Municipalities with a Business Tax in 1987

Cities		Total Property Tax	Business Tax	Business Tax as a Percentage of Property Tax
Calgary	*	$557,735,000	$79,238,000	14.21%
Edmonton	*	$483,515,000	$52,811,000	10.92%
Drumheller		$ 4,548,345	$ 56,291	1.24%
Fort McMurray		$ 26,680,025	$ 92,583	0.35%
Grande Prairie		$ 21,271,404	$ 659,058	3.10%
Lethbridge	*	$ 34,491,087	$ 1,783,837	5.17%
Red Deer	*	$ 30,270,035	$ 1,161,146	3.84%
St. Albert	*	$ 25,206,218	$ 454,910	1.81%
Towns				
Black Diamond		$ 591,263	$ 52	0.00%
High Prairie		$ 1,596,396	$ 24,565	1.54%
Nanton		$ 920,971	$ 587	0.06%
Peace River		$ 4,208,892	$ 51,760	1.23%
Pincher Creek		$ 1,907,961	$ 21,138	1.11%
Stettler		$ 3,594,656	$ 9,303	0.26%
Three Hills		$ 1,091,327	$ 3,123	0.29%
Turner Valley		$ 651,031	$ 725	0.11%
Vulcan		$ 1,168,842	$ 932	0.08%
Villages				
Carbon		$ 203,001	$ 4,441	2.19%
Cluny		$ 53,555	$ 750	1.40%
Donnelly		$ 195,480	$ 1,272	0.65%
Empress		$ 109,185	$ 846	0.78%
Hussar		$ 105,325	$ 1,180	1.12%
Kinuso		$ 88,419	$ 1,216	1.38%
Nampa		$ 179,003	$ 2,834	1.58%
Standard		$ 164,989	$ 2,215	1.34%
Torrington		$ 90,114	$ 1,094	1.21%
Municipal Districts				
Kneehill		$ 6,790,710	$ 8,251	0.12%

* Municipalities which exempt M & E from taxation.

NOTE: Total property tax data includes school taxes. Business taxes collected by Alberta municipalities are used for municipal purposes only.

1.3 PROVINCIAL CORPORATE INCOME TAX

Alberta is one of three provinces in Canada (the others being Quebec and Ontario) that assesses and collect its own corporate taxes. The Corporate Tax Administration Division of Alberta Treasury officially began collection of corporate income taxes in Alberta on January 1, 1981. While the provincial tax base is very similar to the federal base, Alberta does have the capability to implement its own tax deductions and incentive programs.

Tax Rates

Alberta, like most other provinces, has a tiered corporate rate income structure based on eligibility for the small business deduction and the manufacturing and processing deduction.

In recent years, a number of changes have been made to the corporate income tax rates. Effective April 1, 1985, corporations with manufacturing and processing operations were made eligible for a five year tax reduction (scheduled to end March 31, 1990). The tax rate applicable to large corporations was reduced from 11% to 5% on their income from these operations. Corporations already paying tax at the small business rate of 5% with manufacturing and processing as their primary activity, benefited from a five year tax holiday (0%).

On April 1, 1987, the general corporate tax rate was increased from 11% to 15%, and the rate on Alberta manufacturing and processing income of large corporations was increased from 5% to 9%. The tax rates for small business corporations, and small manufacturing and processing corporations remained unchanged. The latest adjustments to the tax rates has resulted in a four tiered rate structure for Alberta corporations.

A summary of the recent changes to the corporate income tax rates is presented in the following table.

Table 1.3

Recent History of the Alberta Corporate Tax Rate Structure

	General Business	Manufacturing Processing	Small Business	Small Manufacturing
1979 to March 31, 1985	11%	11%	5%	5%
April 1, 1985 to March 31, 1987	11%	5%	5%	0%
April 1, 1987	15%	9%	5%	0%

1.4 OTHER PROVINCIAL CORPORATE TAXES

Alberta does not have a provincial retail sales tax. However, on June 1, 1987 a 5% hotel/motel accommodation tax was implemented. This tax falls primarily on tourists and business travelers.

Similarly, Alberta does not impose any capital or payroll taxes.

2.0 REVIEW OF OTHER PROVINCIAL CORPORATE TAX SYSTEMS

As part of the Task Force analyses, Alberta's corporate tax system was compared with the municipal and provincial corporate tax systems in B.C., Saskatchewan, Manitoba, Ontario, Quebec and Nova Scotia. A brief description of the tax systems in these provinces is presented in the following sections.

2.1 INDUSTRIAL PROPERTY ASSESSMENT AND TAXATION

Property taxes are a municipal responsibility in all provinces except New Brunswick and Prince Edward Island, and are mandatory in all municipalities except in Newfoundland. Outside of Alberta, Nova Scotia is the only other province in Canada that assesses and taxes Machinery and Equipment (M & E) used for manufacturing and processing. British Columbia fully eliminated all taxes on M & E in 1987.

The statutes of the various Provinces use terms "actual value", "market value" and "real value" in their definitions. It has been held that all these terms can be used interchangeably and simply mean normal market value; the amount that a willing buyer would give and a willing seller would take. Listed below are points for comparison from property taxes of the selected provinces.

Nova Scotia

Property is re-assessed once every three years at three levels, residential, resource, and commercial. Machinery and Equipment affixed to land and/or buildings is included as part of the assessment base. Exemptions include farmland (but not buildings) and railways. Forest property has an 'alternative tax' rather than the general tax.

In 1986, the Nova Scotia Task Force on Investment and Taxation recommended removal of M & E from property tax assessments. The research conducted for the report indicated that "Nova Scotia property tax levels would be very competitive with New Brunswick and Ontario if M & E was removed from property tax assessments". To date, no action has been taken by the Nova Scotia Government to exempt manufacturing M & E from taxation. However, the Province has been providing a rebate since 1980 for taxes paid on the first $1,000,000 of manufacturing M & E assessed on each property.

Quebec

Property is assessed at its actual value, which must be the same proportion of total assessed values of all property in the municipality, as its actual value is of total actual values. Industrial and farm machinery is excluded from the assessment base unless it provides service to land and/or buildings. Rates are uniform except for farmland and natural gas, electricity, and telecommunications distribution systems.

The provincial government finances an equalization scheme to proportionately average property tax revenues among municipalities. Quebec's property tax system was substantially reformed in 1980. The standard school property tax

was abolished. Additionally, the property tax base was broadened through such changes as the reorganization of business taxes and the broadening of the definition of taxable immovables.

Ontario

Real property in Ontario includes land, buildings, machinery and fixtures affixed to land and/or buildings. This tax base is effectively reduced by excluding from property taxation M & E used for manufacturing, farming or mineral processing.

In Ontario, the assessment function is carried out by provincial officials on a decentralized basis. However, market value assessment is often postponed. To alleviate this, the province has the power to equalize assessments within individual municipalities and between municipalities within the same regional government.

Manitoba

Assessment activities are performed by provincial officials except in Winnipeg, where local assessors have the responsibility. Legislation requires that land be assessed at its value, improvements at 2/3 of their value. M & E affixed to land and/or building is not included as part of the assessment base. Reassessments are to take place every five years outside Winnipeg, every three years within. However, this criteria is not currently satisfied.

Saskatchewan

Land is assessed at 100% of fair value, improvements at a percentage of that value. Reassessments are to occur at least every eight years within urban municipalities and every twelve years in rural municipalities. These time periods can be, and are, extended by the province.

The tax base in Saskatchewan includes land, buildings, M & E used to service land and/or buildings, pipelines, oil and gas production equipment, and mineworks. M & E used in manufacturing and processing is exempt from taxation.

The Saskatchewan Assessment Authority conducted a complete reassessment in 1985, after which the local Government Finance Commission recently recommended shifting assessment responsibility to an independent agency. The Saskatchewan Assessment Management Agency was subsequently set up to carry-out this responsibility.

Local councils in urban municipalities can exempt any property or business for up to five years.

British Columbia

The British Columbia Assessment Authority is responsible for assessment province wide. Land and improvements are assessed separately at their actual value. Re-assessments are performed every two years.

A significant change to the property tax system in the 1985 provincial budget was the elimination of machinery and equipment from property taxation. 1987 marked the end of the three year phase out which began in 1985.

Re-valuation of major industrial properties was undertaken in 1988 under a new prescribed cost based system. Assessments of existing plants will be restricted to increases of 20% in 1989, and 20% for 1990. This phase-in process was announced by the Minister of Finance and Corporate Relations to ease the transition to the new regulated cost method of assessment.

2.2 LOCAL BUSINESS TAX

Business taxes are the second largest source of tax revenue for local governments in Canada. Various tax bases are used with business taxes, all of which are related to the value of property used in the business. The most common tax bases are the assessed value for property tax purposes and the annual rental value. Square footage of floor space, storage capacity, and flat rates are also used. In Nova Scotia, Ontario, and Saskatchewan, the business tax rates are identical to the general property tax rates whereas in other provinces they differ. Business assessment in these three provinces are also subject to levies by school divisions, but not in other provinces.

Business taxes are levied in all provinces except Prince Edward Island and New Brunswick. In Newfoundland, Nova Scotia, Ontario, and Saskatchewan, business taxes are a mandatory municipal tax, whereas in other provinces they are levied at the option of local councils. A brief description of the business tax base for each of the selected provinces examined in this study, is as follows.

<u>Nova Scotia</u>

In Nova Scotia, business taxes are based on percentages of the assessed value of business property. For most businesses, including manufacturers, the business occupancy assessment is 50% of the general property tax assessment. For financial institutions, it is 75% and, for restaurants, hotels, and service stations, it is 25%. Business taxes are levied at the same rate as the commercial general property tax rates.

<u>Quebec</u>

Business taxes in Quebec are imposed on the assessed gross rental value of the business property. The business tax rate cannot exceed 5.5 times the general property tax rate.

<u>Ontario</u>

Municipalities in Ontario determine assessed value for business tax purposes by applying percentages (established by provincial legislation) to the general property tax assessed value of business property. The percentages vary by type of business from 140% for distilleries to 25% for parking lots. For manufacturers, the business assessment is computed at 60% of the property assessment. The business tax is levied on this base at the same rate as the general commercial property tax rate.

Manitoba

In Manitoba, municipalities may levy business taxes on the basis of assessed gross rental value or may levy license fees in lieu of business taxes. The assessed rental value may include personal property to the extent that it is specified in local bylaws. The business tax is limited to a maximum of 15% of assessed rental value.

Business taxes are a mandatory local tax in Winnipeg but are optional elsewhere in the province.

Saskatchewan

In urban municipalities in Saskatchewan, business tax is levied on the basis of either assessed gross rental value or square footage of floorspace. When this tax is based on floor space, the square footage is multiplied by a factor, which varies with the type of business, to determine the assessed value for business tax purposes. In rural municipalities, the business tax must be levied on the basis of floor space. For grain elevators, the tax is based on storage capacity. Plant and equipment of mines and of oil and gas wells are exempt from this tax.

The business tax rate is levied at the same rate as is the general property tax rate.

British Columbia

Municipalities that choose to levy business taxes must base the assessed value for business tax purposes on the greater of: the assessed gross rental value; or the taxable assessed value of personal property used for business purposes. The latter includes movable tenant improvements in the definition of personal property.

Almost all municipalities in B.C. have moved away from the business tax. In place of the business tax B.C. municipalities now use a system of variable tax rates based on 9 property classifications (e.g. residential, business and other, industrial, forestry, utility, etc.)

Municipal councils in B.C. also have the option (by bylaw) of imposing an annual business licence fee. However these fees are relatively small as maximum fee limits are set by provincial legislation. Maximum licence fee limits are as follows:

City or district (population of 10,000 or less)	$ 500
City or district (population over 10,000 but not over 50,000)	$1,000
City or district (population over 50,000)	$1,500

2.3 PROVINCIAL CAPITAL TAX

Capital tax is levied on the value of a corporation's long term capital employed in the business.

Quebec, Ontario, Manitoba, and Saskatchewan are the only provinces that currently impose a general tax on the paid-up capital of corporations. British Columbia recently eliminated its capital tax (effective April 1, 1987) for all corporations except major banks with headquarters outside the province. Other provinces such as Nova Scotia and New Brunswick levy a capital tax on financial institutions only. Rates are shown in the following table.

Table 2.1

Capital Tax, Annual Rates
Effective May 26, 1989

	Paid-up Capital		
	General	Banks	Trust & Loan Companies
Nova Scotia	-	1.5%	1.5%
Quebec	0.5%	1.01%	0.97%
Ontario	0.3%	0.8%	0.6%
Manitoba	0.3%	3.0%	3.0%
Saskatchewan	0.5%	3.0%	3.0%
Alberta	-	-	-
British Columbia	-	2.0%	2.0%

While each province defines its capital tax base somewhat differently, it generally includes the amount received by the company on its issued share capital as well as its contributed surplus, retained earnings, long term debt, short-term debt of a capital nature, and all reserve funds except those for depreciation, depletion and doubtful debts.

Note: Certain corporate exemptions or special flat rates are provided in each province (e.g. small businesses, family farm corporations).

2.4 PROVINCIAL CORPORATE INCOME TAX

All provinces and territories in Canada levy corporate income taxes. Quebec, Ontario, and Alberta administer and collect their own provincial corporate taxes, although the tax base in each province is similar to the federal base. In all other provinces and territories, the federal government acts as their agent in collecting their income taxes. For these provinces and territories, the corporate tax base must be identical to the federal tax base.

Corporations are subject to provincial income tax if they have a permanent establishment in the province. If a corporation has permanent establishment in more than one province, its taxable income is allocated by means of a formula that is uniform for all provinces (e.g. ratios of sales and salaries and wages in a given province to total sales).

Rates

All provinces in Canada have a tiered corporate income rate structure. In addition to a general corporate tax rate, each province levies a differential lower rate on corporate income eligible for the federal small business deduction. A number of provinces, including Alberta, also provide special reduced rates for other selected industry sectors such as manufacturing and processing. A list of the provincial corporate income tax rates for the selected provinces examined in the study are shown in the following table.

Table 2.2

Corporate Income Tax Rates by Province, May 26, 1989

	Small Business Rate [a]	General Rate [b]
British Columbia	9%	14%
Alberta	0/5%	9/15%
Saskatchewan	0/10%	15%
Manitoba	0/10%	17%
Ontario	10%	14.5/15.5%
Quebec[c]	0/3.22%	5.9/13.9%
Nova Scotia	0/10%	15%

a The 0% rate applies to new start-up small business except in Alberta where it applies to manufacturing and processing income. Saskatchewan's 0% rate applies to both. For Manitoba the 0% rate increases by 2 percentage points each year to a maximum of 10%.

b In Alberta, the lower rate applies to manufacturing and processing income. In Ontario, the lower rate also applies to all primary industries. In Quebec, the lower rate applies to all active business income.

c Quebec's corporate tax system is not directly comparable to those in other provinces.

2.5 OTHER PROVINCIAL CORPORATE TAXES

Payroll Tax

Quebec levies a provincial tax on employer payrolls at the rate of 3.22% to finance its health services. Manitoba has a levy of 2.25% of employers' total compensation paid to employees to finance part of the costs of health and education. Employers with annual payrolls of less than $50,000 have been exempt from this levy since January 1984.

3.0 INTERPROVINCIAL COMPARISON OF CORPORATE TAX SYSTEMS

3.1 LOCAL PROPERTY AND BUSINESS TAXES

As part of the Task Force Study, a provincial survey was conducted to obtain information on assessment practices, and to determine tax levels for industrial properties across Canada. Provinces surveyed included Alberta, British Columbia, Saskatchewan, Manitoba, Ontario, Quebec, and Nova Scotia.

Two types of specific industrial properties were selected for the survey - an oil refinery and an industrial warehouse. The oil refinery represented an industry with a high level of machinery and equipment (M & E) and the industrial warehouse - a property with only land and buildings and no M\&\E.

Regarding the industrial warehouse property, the Working Group was able to provide the Provinces surveyed with a detailed description of the specifications for a "typical warehouse". Each province surveyed estimated the assessed value and taxes paid as if the warehouse was located in the same municipality as the actual refinery property (refer to Table 3.1 - figures expressed in taxes per square foot).

The data on the oil refinery show the **1987 taxes paid on actual refinery properties** in each province (refer to Table 3.2). Due to the different sizes of the refineries, the figures are expressed in **taxes paid per 1,000 barrels of capacity** to make the figures more directly comparable.

Some caution should be given in comparing the provincial data as property taxes may vary within each province depending on which municipality the property is located.

In addition to the information on property and business taxes for the above properties, Table 3.3 and 3.4 provide a further breakdown of total property tax between school and municipal taxes.

Table 3.1

1987 Property & Business Taxes
Industrial Warehouse Taxes/Square Foot

	Structures and Land	Business	Total
Alberta			
Urban	$ .63	$ .23	$ .86
Rural	$ .41	na	$ .41
British Columbia	$ 1.16	na	$ 1.16
Saskatchewan	$ .76	$ .26	$ 1.02
Manitoba	$ .80	$ .10	$ .90
Ontario	$ .64	$ .38	$ 1.02
Quebec	$ .37	$ .32	$ .69
Nova Scotia	$ .38	$ .19	$ .57

na - Not Applicable

Table 3.2

1987 Property & Business Taxes on Actual Oil Refinery Properties
Taxes/1000 bbls of Daily Capacity

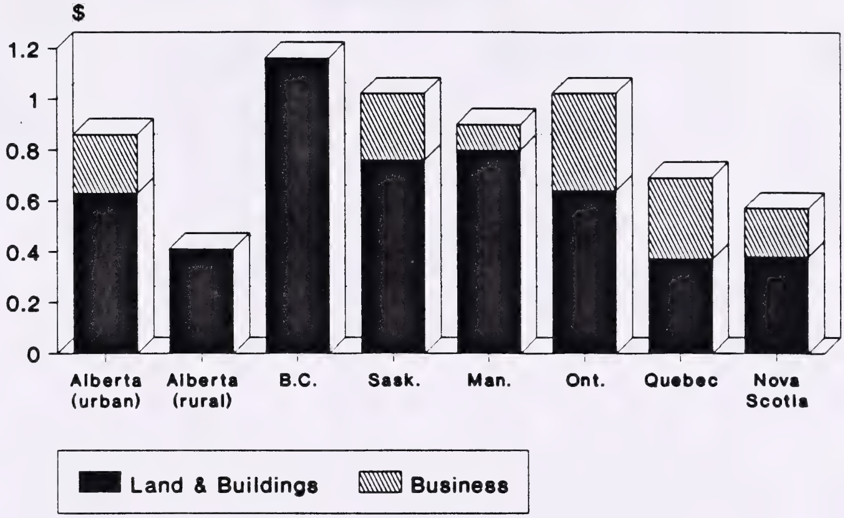
	Capacity BBL/Day	Structures and Land	Tankage	Business	Machinery & Equipment	Total
Alberta (1)	30,000	$ 3,862	*	na	$ 39,336	$ 43,198
Alberta (2)	182,000	$ 7,967	$ 3,132	na	$ 32,418	$ 43,517
B.C.	34,500	$ 24,473	$ 6,255	na	na	$ 30,728
Saskatchewan	50,000	$ 6,787	$ 8,609	$ 3,428	na	$ 18,834
Ontario	100,000	$ 8,904	$ 1,568	$ 6,283	na	$ 16,755
Quebec	100,000	$ 10,790	$ 6,665	$ 14,649	na	$ 32,104
Nova Scotia	85,000	$ 11,471	$ 5,310	$ 7,666	$ 25,629	$ 50,078

na - Not Applicable

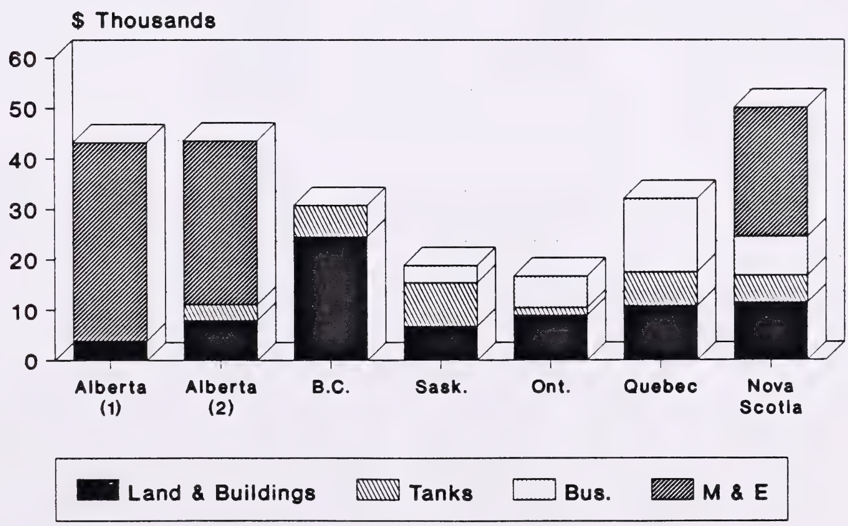
* - included with machinery and equipment

Note: Alberta (1) and (2) represent two different refinery properties in Alberta.

1987 PROPERTY & BUSINESS TAXES
INDUSTRIAL WAREHOUSE
TAXES/SQUARE FOOT



1987 PROPERTY & BUSINESS TAXES
OIL REFINERY
TAXES/1000 BBLS OF DAILY CAPACITY



Alberta (1) and (2) represent two different refinery properties

Table 3.3

1987 Property Taxes Industrial Warehouse
Taxes/Square Foot

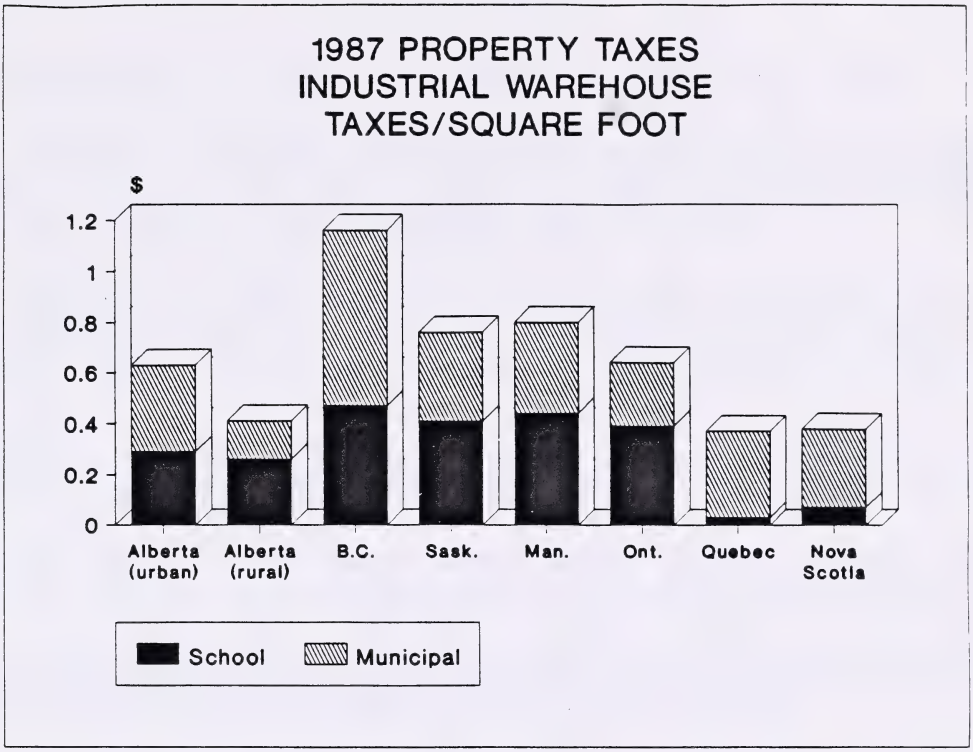
	School	Municipal	Total
Alberta Urban	$ 0.29	$ 0.34	$ 0.63
Alberta Rural	$ 0.26	$ 0.15	$ 0.41
B.C.	$ 0.47	$ 0.69	$ 1.16
Saskatchewan	$ 0.41	$ 0.35	$ 0.76
Manitoba	$ 0.44	$ 0.36	$ 0.80
Ontario	$ 0.39	$ 0.25	$ 0.64
Quebec	$ 0.03	$ 0.34	$ 0.37
Nova Scotia	$ 0.07	$ 0.31	$ 0.38

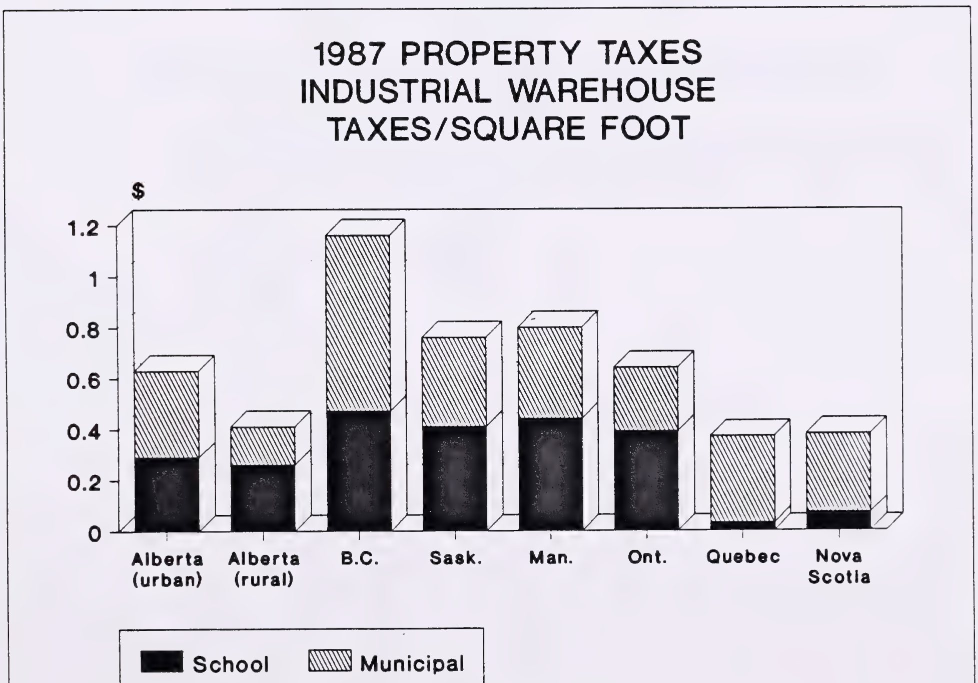
Table 3.4

1987 Property Taxes on Actual Oil Refinery Properties
Taxes/1000 bbls of Daily Capacity

	School	Municipal	Total
Alberta (1)	$ 27,430	$ 15,768	$ 43,198
Alberta (2)	$ 24,457	$ 19,060	$ 43,517
B.C.	$ 12,525	$ 18,204	$ 30,729
Saskatchewan	$ 8,353	$ 7,603	$ 15,395
Ontario	$ 6,336	$ 4,137	$ 10,473
Quebec	$ 1,578	$ 15,878	$ 17,456
Nova Scotia	$ 7,928	$ 34,484	$ 42,412

Note: Alberta (1) and (2) represent two different refinery properties in Alberta.





Alberta (1) and (2) represent two different refinery properties

Alberta Municipal Taxes as a Percentage of Property Value

The incidence of taxation as a percentage of the estimated market value of property is a universally accepted means of comparing taxes. As the value of property is the basis for property assessment, with taxing rates levied on that value, a correlation of taxes compared to value can be made.

In 1988, annual residential taxes in the larger cities are approaching 1.5% of the property's value. This tends to increase as the size of urban municipalities decreases, primarily due to reduced property values and to increased servicing costs due to the smaller number of people or properties to be served.

Commercial property taxes are higher due to a provincial levy (School Foundation Program) for School purposes and the split mill rate provision often used for municipal purposes.

Industrial property with larger amounts of machinery and equipment gains the benefit of the 1985 changes to depreciation rates and the levels of assessment.

Farm property gains the benefits of an assessment concession in which the land is assessed on the basis of its agricultural productive capacity with full or partial exemption extended to the residence and out buildings.

Table 3.5

Municipal Taxes as a Percentage of Property Value - Alberta Property Taxes

	Residential %	Commercial %	Industrial %	Farm %	Business %
Cities	1.50	2.50	-	-	1.00
Towns	1.75	2.50	-	-	-
Villages	2.50	3.00	-	-	-
Summer Villages	1.00	-	-	-	-
Rural Municipalities	1.50	2.00	1.25	.75	-

3.2 INTERPROVINCIAL COMPARISON OF TOTAL CORPORATE TAX BURDEN

As part of the interprovincial comparison of corporate taxation, the Industrial Property Taxation Working Group contracted the Conference Board of Canada to undertake a study on the relative competitiveness of the corporate tax systems in Alberta, Ontario, Quebec, and British Columbia.

Note: a full copy of the study is presented in Appendix III.

The Conference Board of Canada was selected based on its expertise and research in international tax comparisons. The analysis in this study was conducted within the framework of an after-tax cash flow model developed by the Board. The corporate taxes examined include federal and provincial corporate income tax, capital tax, payroll tax, property and business tax, and provincial and federal sales tax. **Information compiled by the Working Group on the comparison of provincial property taxes (refer to Appendix II) was incorporated into the Conference Board study.**

The Conference Board's accumulated net cash flow model compares the projected annual stream of revenues less costs over a twenty year period. Derivation of an after-tax cash flow for a typical Canadian plant requires information on several factors: its annual production and selling prices; the initial outlay or investment cost incurred to build the plant; the annual cost structure, reflecting both production and administration costs; plus the applicable corporate tax structure. The analysis uses a 5% discount rate to compare the net present value of total taxes paid under each province's tax system with the net present value of the plant model's accumulated cash flow before taxes.

Measuring the Competitiveness of Provincial Tax Systems

The basis for this study's comparative tax analysis is the Alberta plant model's after-tax cash profile. Two types of Alberta-based industries were selected:

- petroleum refining which represents a relatively capital intensive industry; and
- food processing which represents a smaller scale industry, with a relatively lower proportion of fixed capital investment in manufacturing machinery and equipment.

The after-tax cash flow models of a typical food processing plant and a typical petroleum refining plant were examined under the various provincial tax regimes over a twenty year timeframe.

The competitiveness of Alberta's tax system is examined by replacing Alberta's tax system with those of each of the other provinces while holding other variables constant. The other variables include annual production and marketing prices, the initial investment, and the annual cost structure, reflecting both production and administration costs.

Information of these costs were gathered from major Alberta manufacturers of the selected products, and thus is a representative profile of industry costs.

Scenarios and Assumptions

The analysis is carried out on the so called "flow-through" assumption. The corporation is assumed to be profitable; thus, losses in the initial years of the establishment's operation, as well as various tax incentives, can be immediately credited against positive corporate income.

The provincial corporate tax systems are examined and compared by applying a discounted cash flow (5%) to the plant model in each industry.

To ensure that the flexibility and advantages of each province's tax system are fully captured by the analysis, each system was examined under different scenarios. These include:

- o base case
  - represents an industry average profitability or average revenue-cost structure for each plant model;
- o low profitability case
  - for the food processing plant the annual revenue stream is reduced by 20% from the base case;
  - for the refinery, plant operating capacity is reduced to 75% from the base case level of 85%;
- o high profitability case
  - for the food processing plant, the annual revenue stream is increased by 20% over the base case; and
  - for the refinery, plant operating capacity is increased to 100%
- o financial option case
  - each scenario simulation is performed assuming full equity financing of the investment; and
  - the sensitivity simulation assumes a typical industry debt-to-equity ratio (15%/85% for the refinery and 75%/25% for the food processing plant) and a prime lending rate of 12%

Summary of Findings

Food Processing Industry - The Alberta corporate tax system ranks as the second most competitive (refer to Table 3.6), following close behind Ontario in all scenarios for the food processing plant. In the base case, total provincial tax payments represent 39% of accumulated net cash flow in Ontario, compared to 40.5% in Alberta; 49.3% in British Columbia; and 59.2% in Quebec.

Ontario's lead in the interprovincial ranking of tax systems originates from the lowest property tax estimate among the provinces examined. By comparison, Quebec imposes the highest property tax which, coupled with substantial capital and payroll taxes, makes this province's tax system the least competitive.

Alberta ranks second, as a result of moderate property taxes and the absence of provincial commodity and capital taxes.

Petroleum Refinery Industry - The Alberta tax system becomes less competitive for the refinery model property, ranking a distant third behind Quebec and Ontario. The reason for this change in ranking is the significantly higher property taxes paid in Alberta compared to Ontario and Quebec.

The most competitive tax system is that of Quebec, in which provincial tax payments amount to 39.3% of accumulated net cash flow (base case), compared to 41.4% for Ontario, 48.2% for Alberta, and 56.0% for British Columbia.

Quebec's lead in the interprovincial ranking of tax systems is mainly because of its low corporate tax rate, and its low level of property taxes relative to Alberta. Ontario is more competitive than Alberta, solely due to the lower property tax levels in that province. The lower property taxes in Ontario and Quebec more than offset the impact of other provincial taxes in these provinces.

Table 3.6

Summary of the Competitive Ranking of Total Federal and Provincial Tax Systems in the Food Processing and Petroleum Refining Industries (Reformed Tax System)

	Food Processing Industry				Petroleum Refining Industry			
Province	BC	LPC	HPC	FOC	BC	LPC	HPC	FOC
Alberta	2	2	2	2	3	3	3	3
British Columbia	3	3	3	3	4	4	4	4
Ontario	1	1	1	1	2	1	2	2
Quebec	4	4	4	4	1	2	1	1

BC = Basic Case
LPC = Lower Profitability Case
HPC = Higher Profitability Case
FOC = Financial Option Case

Source: Conference Board of Canada, Interprovincial Comparison of Tax Systems in Food Processing and Petroleum Refining Industries, January 1989.

Table 3.7

Corporate Taxes as a Percentage of Accumulated Net Cash Flow Before Taxes: Food Processing Plant, Reformed Tax Systems (Discount Rate: 5 Percent)

	Alberta			British Columbia			Ontario			Quebec		
Specification	BC	LP	HP	BC	LP	HP	BC	LP	HP	BC	LP	HP
Corporate Income Taxes												
Federal	35.9	38.6	36.0	33.8	35.7	34.0	35.8	38.6	35.8	27.1	26.7	28.0
Provincial	23.5	25.5	23.4	20.6	21.9	20.7	20.6	21.8	20.7	5.3	4.6	5.6
A. Subtotal	**59.4**	**64.1**	**59.4**	**54.4**	**57.6**	**54.7**	**56.4**	**60.4**	**56.5**	**32.4**	**31.3**	**33.6**
Commodity Taxes												
Telecommunications	0.6	0.8	0.5	0.6	0.8	0.5	0.6	0.8	0.5	0.6	0.8	0.5
Federal	1.0	1.4	0.9	1.0	1.4	0.9	1.1	1.4	1.0	1.0	1.4	0.9
Provincial	-	-	-	6.3	8.7	5.7	1.1	1.6	1.0	1.3	1.8	1.2
B. Subtotal	**1.6**	**2.2**	**1.4**	**7.9**	**10.9**	**7.1**	**2.8**	**3.8**	**2.5**	**2.9**	**4.0**	**2.6**
Other Provincial and Local Taxes												
Capital Tax	-	-	-	-	-	-	5.7	7.3	5.3	8.4	10.8	7.9
Payroll Tax	-	-	-	-	-	-	-	-	-	3.4	4.6	3.0
Property Tax	17.0	23.4	15.2	22.4	30.9	20.1	11.6	16.0	10.4	40.8	56.4	36.7
C. Subtotal	**17.0**	**23.4**	**15.2**	**22.4**	**30.9**	**20.1**	**17.3**	**23.3**	**15.7**	**52.6**	**71.8**	**47.6**
Total Corporate Taxes (A+B+C) of Which	78.0	89.7	76.0	84.7	99.4	81.9	76.5	87.5	74.7	87.9	107.1	83.8
Provincial and Local Taxes	40.5	48.9	38.6	49.3	61.5	46.5	39.0	46.7	37.4	59.2	78.2	54.4
Cash Flow After Taxes	22.0	10.3	24.0	15.3	0.6	18.1	23.5	12.5	12.3	12.1	- 7.1	16.2

BC = Basic Case
LP = Lower Profitability Case
HP = Higher Profitability Case

Source: Conference Board of Canada, Interprovincial Comparison of Tax Systems in Food Processing and Petroleum Refining Industries, January 1989

Table 3.8

Corporate Taxes as a Percentage of Accumulated Net Cash Flow Before Taxes: Petroleum Refining Plant, Reformed Tax System (Discount Rate: 5 Percent)

	Alberta			British Columbia			Ontario			Quebec		
Specification	BC	LP	HP	BC	LP	HP	BC	LP	HP	BC	LP	HP
Corporate Income Taxes												
Federal	41.9	75.5	34.5	40.2	70.3	33.7	42.6	78.5	34.7	38.6	66.7	32.5
Provincial	29.1	56.1	23.2	26.0	48.6	21.0	24.6	43.5	20.5	6.1	5.3	6.3
A. Subtotal	**71.0**	**131.6**	**57.7**	**66.2**	**118.9**	**54.7**	**67.2**	**122.0**	**55.2**	**44.7**	**72.0**	**38.8**
Commodity Taxes												
Telecommunications	0.2	0.6	0.1	0.2	0.6	0.1	0.2	0.6	0.1	0.2	0.6	0.1
Federal	0.4	1.3	0.2	0.4	1.3	0.2	0.4	1.3	0.2	0.4	1.3	0.2
Provincial	-	-	-	10.3	32.5	5.3	0.5	1.5	0.3	0.5	1.6	0.3
B. Subtotal	**0.6**	**1.9**	**0.3**	**10.9**	**34.4**	**5.6**	**1.1**	**3.4**	**0.6**	**1.1**	**3.5**	**0.6**
Other Provincial and Local Taxes												
Capital Tax	-	-	-	-	-	-	9.0	25.5	5.4	14.3	40.2	8.5
Payroll Tax	-	-	-	-	-	-	-	-	-	6.8	20.7	3.3
Property Tax	19.1	60.6	9.9	19.7	62.4	10.2	7.3	23.0	3.8	11.6	36.7	6.3
C. Subtotal	**19.1**	**60.6**	**9.9**	**19.7**	**62.4**	**10.2**	**16.3**	**48.5**	**9.2**	**32.7**	**97.6**	**18.1**
Total Corporate Taxes (A+B+C) of Which	90.7	194.1	67.9	96.8	215.7	70.5	84.6	173.9	65.0	78.5	173.1	57.5
Provincial and Local Taxes	48.2	116.7	33.1	56.0	143.5	36.5	41.4	93.5	30.0	39.3	104.5	24.7
Cash Flow After Taxes	9.3	-94.1	32.1	3.2	-115.7	29.5	15.4	-73.9	35.0	21.5	-73.1	42.5

BC = Basic Case
LP = Lower Profitability Case
HP = Higher Profitability Case

Source: Conference Board of Canada, Interprovincial Comparison of Tax Systems in Food Processing and Petroleum Refining Industries, January 1989.

4.0 ALBERTA MUNICIPAL TAXATION AND FINANCE ISSUES

4.1 LOCAL TAX BASE

4.1.1 Equalized Assessment

Equalized assessment is a process by which municipal assessments made at different times under varying marketing conditions are brought to a common basis. It provides a standard whereby valid comparisons can be made among municipalities.

In Alberta equalized assessment is used to apportion some shared costs and provincial grant programs (e.g. municipal assistance and transportation grants). The main application of equalized assessment is for the School Foundation Program and the supplementary school requisition. In both instances, equalized assessment is used to apportion the requisition among municipalities. Other applications of equalized assessment include apportioning costs for supplementary hospital costs, senior citizens homes, nursing homes, and planning.

When equalized assessment is used for sharing costs, the requisitioning authority calculates the ratio of the equalized assessment of each collecting authority to the total equalized assessment for the requisitioning authority in order to determine the share of the requisition that will be borne of each collecting authority.

The Municipalities Assessment and Equalization Act, requires that equalized assessments be rendered at 20% of base year "fair actual value" (full value). Conversion factors are applied to actual live assessments of improvements, machinery and equipment, and farmland to update them to the base year. The assessment of non-farm land is converted through use of assessment/market ratios determined by the assessor for each municipality.

Equalized assessments will change annually to reflect changes in market conditions and assessment policy that would normally impact the actual assessment if a general reassessment were completed each year.

Inconsistencies and Inequities of Equalized Assessment

Inequities and inconsistencies in the equalization process were addressed by the Study Committee on Equalized Assessment during 1981 - 1983. Recommendations resulting from the Committee's report have been considered by the provincial government and a number of changes have been made over the past two to three years.

The report suggests that, since live (actual) assessment forms the basis for the determination of equalized assessments, much of the inequity attributed to equalized assessment results from inaccuracies in the municipality's live assessment or the submission of improper live assessment figures to the Board. The accuracy of equalized assessment is only as good as the assessment figures completed by each municipality and submitted to the Equalization Board.

Not all municipalities tax M & E, however, M & E assessment is used in determining every municipality's equalized assessment. Concern has been raised with the accuracy of M & E assessment in those municipalities which do not tax M & E. Sufficient concern has been expressed in the past to lead the Committee on Equalized Assessment to make the following observation:

> "Concern has been expressed that the Machinery and Equipment assessment may be inaccurately reported. In most circumstances, the assessor does not have the resources to devote the same attention to assessment that is not taxed as is given to taxable assessment. Further, there is seldom, if ever, any review of the non-taxed assessment through appeals to the Court of Revision or the Assessment Appeal Board."

The suggestion is that, when M & E is not taxed by the municipality, little incentive is provided to produce or maintain an assessment that will withstand public audit through the normal review and appeal process. Ineuqities can result that will have spin off effects throughout the Province.

Inconsistencies can also occur in the filing of assessment data used in the equalization process. Each year secretary-treasurers from each municipality must complete an Assessment & Valuation Return for the Equalization Assessment Board. Should an error be made on this return, its effects could result in a change in equalization percentages used in requisitions to surrounding municipalities.

The application of the **"Ramsay Formula"** prorates electric power and pipeline, and AGT linear properties between school and hospital districts in rural municipalities.

4.1.2 Machinery and Equipment Versus Business Tax

Sections 1.1 and 1.2 of this report give a brief overview of machinery and equipment (M & E) tax and business tax in Alberta. This section provides a comparative analysis of the two tax alternatives, and some of the principal implications of each tax from the perspective of the taxpayer, the municipality, and the school board.

A comparison of the application of the two tax systems is provided on the following page.

BUSINESS ASSESSMENT AND TAX

1) Based on the gross annual rental value of the premises occupied or, alternatively, the storage capacity or floor space.

2) Rates may be varied for different classes of business.

   Large industrial properties are generally taxed on the basis of gross annual rental value.

   The tax is optional and rates are determined by municipal bylaw. There are some legislative controls on level of taxation. Sections 85 and 93 of the Municipal Taxation Act (MTA).

3) Tax is levied on the person carrying on the business.

4) If a business operates for less than one year, but more than thirty days, the taxes are prorated on the basis of the period of operation. Section 86, MTA.

   There is a provision for supplementary business tax. Section 90, MTA.

5) Tax arrears can only be collected through court actions. Section 125 and 126, MTA. (Seizure of goods and chattels, etc.)

MACHINERY & EQUIPMENT AND TAX

1) Based on the depreciated replacement costs times mill rate. Sections 6 & 7 of the Municipal Taxation Act (MTA).

2) Assessment levels and procedures determined by provincial legislation and regulations. Mill rates established by local municipalities some legislative controls on mill rate levels.

3) Tax is levied on land. (Owner or operator in the case of oil and gas facilities.)

4) Machinery and equipment are only assessable when they "come on stream" (in operation).

   If no supplementary assessment bylaw exists, they are assessable and taxable the year following the year they come on stream. Section 11 (3) MTA.

   If a supplementary assessment bylaw is in force, machinery and equipment can be assessed and taxed for the protion of the year that it operates. Section 8, MTA.

5) Tax arrears can be collected through the Tax Recovery Act.

   Seizure of property and liquidation of property to pay outstanding arrears. Section 134 and 135, MTA.

6) The tax can be levied against any activity or undertaking of a commercial or industrial nature (broader based).	6) Can only be assessed and taxed if a manufacturing and processing function is carried on. Note: Certain items may still fall to assessment as structures if no manufacturing or processing exists.
7) The tax does not generate revenue for school boards.	7) Subject to the same tax rate (mill rates) as other property assessment.
8) A business tax and property tax on machinery and equipment can both be levied in a municipality but not on the same premises. Section 80 (2), MTA.	
9) In a rural municiality, a business tax cannot be levied against a farm related business such as production of crops or livestock. Section 80 (2), MTA.	
10) The complaint/appeal process is the same for business taxes and machinery and equipment assessment.	

4.1.3 School Foundation Program

In 1961 Alberta made a significant change in its school finance plan by establishing the School Foundation Program Fund (SFPF). The province obtained funds for this program, primarily from general revenues of the province but also through a uniform province-wide levy on residential and non-residential property, and distributed these funds among school jurisdictions on the basis of their pupil enrolment, transportation costs, and capital expenditure. The purpose of the SFPF property tax levy was to reduce the reliance on local taxation by school boards and in 1961, the first year of the SFPF, supplementary requisitions fell from 56% to 8% of educational revenues. This reduction of local requisitions greatly helped to equalize the tax load throughout the province. Since property tax revenues from the province-wide uniform levy were now pooled and redistributed, the funds were more equally shared among the wealthier and poorer regions of Alberta.

In 1966, the Homeowner's Tax Discount Act was introduced by the province. The primary purpose of this rebate was to reduce local school taxes on principal residences. By 1973, the total property tax rebates amounted to $57 million. Because the province was already providing such large rebates it decided to introduce the Alberta Property Tax Reduction Act in 1974, which removed residential property from the SFPF levy. In 1975, non-corporate farmland was

also removed from the SFPF levy. Residential property and farmland are now subject to only the local school board supplementary requisitions.

Non-residential properties continue to be subject to both the SFPF levy and the local school board supplementary requisitions. However, it should be noted that the SFPF tax levy on non-residential property was not increased to make up for the tax loss from the exemption of farmland and residential property. The shortfall was covered by increases from provincial general revenues.

The SFPF property tax levy has provided a means for more evenly distributing non-residential property taxes among school boards across the province. The levy raised approximately $155.5 million in 1987/88.

4.1.4 School Supplementary Requisitions

Under the School Act, a school board has the authority to requisition an amount of local property taxes to supplement grant revenues from the provincial government. Unlike the School Foundation levy, which applies to only non-residential property, this supplementary requisition applies to both residential and non-residential property.

As shown in Figures 1 and 2, funds raised from the school supplementary requisition have increased dramatically since the early 1970s. (Note: Figures 1 and 2 represent aggregate provincial data for all school jurisdictions in Alberta). Requisitions per pupil increased some 700% between 1974 and 1986. School boards have had to increasingly depend on the supplementary requisition (local taxes) as a means of raising funds to meet their revenue requirements. The circumstances giving rise to this increase in supplementary requisitions are described in Section 5.3 of this report.

The supplementary requisition is collected by the municipalities on behalf of the school boards. A levy is applied against the taxable property which includes machinery and equipment (M & E) unless M & E is exempted from taxation by the municipality in favour of a business tax. The cities of Edmonton, Calgary, Red Deer, Lethbridge and St. Albert exempt all M & E from taxation.

When a business tax is in place, and M & E is not included as part of the tax base, then a higher mill rate is needed on the remaining property tax base to raise the required supplementary requisition. Business taxes raised from business assessment are used for municipal purposes only.

4.1.5 Use of Split Mill Rates

Provincial legislation in Alberta (Municipal Taxation Act) permits the use of split mill rates to affect the amount of property taxation paid in regard to one classification of property relative to another. Most other provinces in Canada also permit the use of some form of variable tax levies between different categories of assessment within a municipality, school division, or other local taxing authority.

Many of the smaller urban communities in Alberta have implemented split mill rates to replace their business tax in order to simplify administrative procedures. A higher rate may be levied against non-residential property to collect the equivalent amount of revenue previously raised through the business tax. In addition, a number of urban municipalities, including Edmonton and Calgary, use a combination of both a business tax and split mill rates to raise revenue from non-residential properties.

For the purpose of using split mill rates, municipalities may classify property as residential, non-residential, and farmland. Residential property may be further subdivided into two or more classes such as multi-family residential and vacant residential.

The residential mill rate may not be higher than the non-residential or farmland rate. Also, in rural municipalities, the residential mill rate may not be less than 75% of non-residential or farmland (note: this restriction does not apply to urban municipalities).

While the Municipal Taxation Act does not restrict the use of split mill rates on the supplementary school tax levy, only one municipality (M.D. of Rocky View) has applied a split school tax rate. However as noted in Section 4.1.3 of this report, the uniform province-wide levy for the School Foundation Program (SFP) applies only to non-residential property - residential and non-corporate farmland are exempt from the SFP levy.

A list of municipalities using split mill rates, along with the percentage variation in the rates, is presented in Appendix I. Note: it should be cautioned that due to reporting difficulties, some municipalities with split mill rates may have been omitted from this list. Also, actual municipal mill rates may vary slightly from the rates presented, as the average rates for each municipality are provided.

4.2 ASSESSMENT PRACTICES

4.2.1 Assessment Function

The legislation and regulations regarding assessment is set out by the provincial government. The assessment roll and the function in which it is carried out is the responsibility of the individual municipalities. Legislation contemplates general assessments being carried out each year, but as an alternative, provides for the adoption of the assessment from the previous year. Assessments can only be used for up to eight years unless an extension is approved. There are several options a municipality may employ regarding who shall perform the assessment function (the Municipal Taxation Act does not specify that the assessor be an accredited municipal assessor of Alberta).

1. They may employ an assessor as a full time municipal employee, responsible to council.

2. A contract assessor may be used to perform the assessment function.

3. The Chief Provincial Assessor (Provincial Assessors) from Municipal Affairs may be contracted.

4. A combination of any of the above may be used especially in the year of a general re-assessment.

From time to time, guidelines are issued to assessors throughout the province by Alberta Municipal Affairs, suggesting preferred practices in assessment matters, not specifically spelled out in legislation.

A general assessment can be adopted by municipal by-law for an additional seven years after it has been placed on the tax roll for the first time, however, an increasing number of municipalities have reduced the cycle in attempt to keep their assessments more current. Presently, forty to fifty general assessments are completed each year with approximately 50% of the total number of properties being assessed by provincial assessors. The idea that assessments are completed in different years by a mixture of private, municipal, and provincial government assessors has led some to believe that more inconsistencies are apt to occur than if all assessments were done by a single authority.

Presently all assessors must follow regulated assessment manuals and provincial inspectors carry out inspection of the work programs on a ad hoc basis. It is generally agreed that there are insufficient number of inspectors to guarantee the accuracy of all assessments.

4.2.2 Supplementary Assessment Issue

A supplementary assessment applies to assessable improvements which have been completed or put into operation during the calendar year, and therefore, have not appeared previously on the assessment roll. Its purpose is to generate property tax revenue for that part of the year in which the property is in use. For example, a building completed on June 30th would be assessed, and therefore, taxed for the period July 1 - December 31. The municipality would receive taxes for a six month period.

There are three issues which arise from this practice when machinery and equipment are included in the supplementary assessment:

Potential Excess Revenue

Property tax rates are established by dividing the funds required from taxation for the coming year by the total assessment value appearing on the assessment roll as at December 31 of the previous year. Some municipalities include estimates of revenue generated from supplementary assessment as part of their budget approval process, which is reflected in the mill rate set by the municipality. Other municipalities make no attempt to estimate the supplementary assessment revenue, and therefore, may realize additional revenues over and above those estimated in the budget approval review process. These additional revenues can be substantial if major industrial/commercial properties are put into operation during the calendar year. When substantial

amounts of machinery and equipment are assessed on a supplementary basis and not included in the mill rate calculation, the municipality receives a windfall gain since machinery and equipment generates few additional costs while contributing significant tax dollars.

Taxpayer Subsidizes Other Taxpayers

Provincial school foundation levies collected from the taxpayer on a supplementary assessment are not remitted to the province in the year collected but are carried forward to the following year where they are offset against the school foundation requirements for the total municipal jurisdiction. Therefore, all taxpayers would pay slightly less at the expense of the single taxpayer that paid the supplementary tax. This only impacts the commercial and industrial taxpayer as residential taxpayers do not pay the provincial school foundation levy. A similar situation occurs with other requisitioning bodies such as schools boards.

Inequity Within Alberta

Municipal Councils have the option to enact a bylaw authorizing a supplementary assessment. In 1986, only nineteen of the some 368 municipalities in Alberta conducted supplementary assessments.

List of Municipalities Which Conducted Supplementary Assessments in 1986

City of Calgary	County of Strathcona	Town of Grand Centre
City of Edmonton	M.D. of Pincher Creek	Town of Okotoks
City of Lethbridge	Town of Bonnyville	Town of Redcliff
City of Fort McMurray	Town of Brooks	Town of St. Paul
City of St. Albert	Town of Claresholm	Town of Taber
City of Wetaskiwin	Town of Coaldale	Town of Three Hills
		Village of Coalhurst

For larger industrial properties, there can be a substantial tax cost/ saving depending on whether or not a municipality has enacted a supplementary assessment bylaw.

4.2.3 Obsolescence for Industrial Plants

The Municipal Taxation Act defines depreciation as a loss in value attributable to any cause.

Economic obsolescence is a form of depreciation that must be given consideration in the preparation of assessment.

The appraisal texts generally recognize that obsolescence exists in two forms: **functional**, the loss in value due to the inability of the property to perform its functions **efficiently**, measured as curable and incurable; and

external or **economic** which results from diminished utility due to negative influences outside the property.

> Economic obsolescence, caused by adverse environmental factors, results in some degree of market rejection, and the extent of this item of depreciation is the extent of the loss in the market value.[1]

Traditionally, economic obsolescence is determined by identifying an external negative influence to a property and measuring the dollar affect of this influence in the market place. This is done by comparison of the market value of a subject property to the market value of similar properties that are not affected by the negative influence.

Industrial properties do not sell regularly on the market place and if they did, very seldom are two properties alike. Therefore, the traditional methods of determining obsolescence generally are not available.

For assessment purposes, where obsolescence has been suspected in industrial properties, long term trends of production declines and net profit/loss analysis have been used to indicate loss in value.

A loss in value that is attributed to a general decline in the industry or to recession in the economy as a whole, has not been considered as economic obsolescence. At present, there is no authority in the Municipal Taxation Act to reduce individual improvement assessments in recognition of a loss in value that stems from either an industry-wide decline or recession. In such situations the loss in value would be taken into account through a new general assessment.

In British Columbia, a 1988 amendment to the Assessment Act gave the Lieutenant-Governor in Council the authority to prescribe different rates of depreciation and different applications of depreciation for classes or types of properties. The Minister responsible for the B.C. Assessment Authority has excluded economic obsolescence from the determination of replacement cost of industrial improvements. The results of these changes will not be known until the 1989 tax year.

4.3 INTER-MUNICIPAL COMPARISON OF PROPERTY TAX TRENDS

Given the limited resources of the Working Group and the difficulty in comparing inter-municipal tax trends, complete and meaningful information could not be compiled on this section.

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1. Appraisal of Real Estate, 7th Edition (American Institute of Real Estate Appraisers), Page 258.

4.4 OPERATING SURPLUS/DEFICITS AND RESERVES

Municipalities

Based on 1986 financial statements, Alberta municipalities in total, had accumulated operating surpluses of $386.3 million and combined operating and capital reserves of $1,186 million. Table 4.1 provides a historical summary (1981 - 1987) of the accumulated surplus and reserve position of selected municipalities in Alberta.

Operating fund surpluses are realized from annual revenues, including taxes, collected in excess of operating expenditures. Similarly, operating fund deficits are realized where expenditures exceed revenues. Surpluses may be used for cash flow management, stabilizing tax levels, or for future transfer to a capital reserve.

With respect to reserves, most municipalities have established capital reserve funds over a period of time to help finance future capital projects. In some cases, capital reserve funds have originated from a provincial grants such as the 1979 Debt Reduction Program. These reserve funds may be dedicated for a specific purpose such as road improvements, equipment replacement, recreation facilities, etc., or they may be uncommitted funds held in reserve by the municipality for undefined general capital purposes.

Municipalities also set aside operating reserves as a means of managing their cash flow to cover operating costs over the course of the fiscal year.

As outlined in Section 4.6 of this report, Alberta Municipal Affairs does not attempt to monitor the content of reserve accounts or regulate the size of capital reserves set aside by individual municipalities.

Furthermore, there are no restrictions or guidelines as to how local officials should finance capital projects (e.g. "pay-as-you-go" which involves primarily the use of current funds and reserves versus "pay-as-you-use", which involves more extensive use of long-term debt).

Table 4.1

Municipal Surpluses and Reserves
($ 000's)

	Accumulated Surplus					Total Operating and Capital Reserves				
	1983	1984	1985	1986	1987	1983	1984	1985	1986	1987
CITIES										
Fort Saskatchewan	4,098	4,493	2,778	3,249	3,762	5,247	5,760	6,175	6,649	6,755
Leduc	631	610	1,159	1,015	891	3,809	6,097	7,157	3,637	1,926
St. Albert	0	971	568	719	952	16,361	18,303	20,472	17,355	17,431
All Cities	**49,255**	**135,766**	**166,577**	**210,036**	**142,545**	**365,412**	**411,249**	**459,745**	**383,986**	**363,491**
TOWNS										
Devon	1,137	1,016	1,089	1,262	1,172	866	709	716	745	671
Hinton	789	975	1,370	1,643	1,918	4,857	5,506	6,313	6,581	7,048
Innisfail	102	473	805	1,140	1,483	2,244	2,347	2,757	2,775	2,183
Stony Plain	0	0	105	297	15	75	300	842	1,291	1,241
Wainwright	678	669	670	697	715	593	506	690	790	565
Westlock	923	1,179	1,436	1,349	845	2,441	2,969	3,124	3,468	4,191
All Towns	**52,527**	**56,327**	**54,450**	**56,491**	**56,098**	**97,214**	**99,833**	**101,995**	**98,630**	**101,799**
COUNTIES										
No. 12 Athabasca	61	238	309	121	205	1,333	2,384	1,444	531	620
No. 14 Lacombe	1,938	2,188	2,493	2,998	3,022	6,486	7,357	8,971	9,254	8,842
No. 16 Wheatland	3,612	3,535	3,599	3,498	3,640	2,697	3,182	3,525	3,774	4,139
No. 20 Strathcona	5,883	6,877	7,530	6,464	6,159	19,340	24,007	26,620	30,016	32,975
No. 23 Red Deer	2,031	2,565	2,509	2,622	2,830	7,036	7,807	7,024	7,340	7,269
No. 25 Leduc	1,806	1,318	2,031	1,936	1,651	10,594	10,301	9,963	7,943	7,266
No. 28 Lac Ste Anne	40	50	114	12	0	5,662	5,690	5,667	5,477	5,434
No. 31 Parkland	5,172	5,844	7,222	7,797	8,000	2,018	2,257	1,643	1,944	2,538
All Counties	**58,336**	**64,626**	**66,770**	**67,095**	**70,986**	**103,811**	**118,395**	**120,497**	**121,465**	**127,830**

Table 4.1 (Cont'd)

Municipal Surpluses and Reserves
($ 000's)

	Accumulated Surplus					Total Operating and Capital Reserves				
	1983	1984	1985	1986	1987	1983	1984	1985	1986	1987
MUNICIPAL DISTRICTS										
No. 6 Cardston	1,184	1,378	1,395	1,296	1,264	2,025	2,025	2,199	2,200	2,182
No. 9 Pincher Creek	870	861	780	759	607	846	698	966	844	884
No. 31 Foothills	1,323	1,329	1,332	1,223	1,215	5,118	5,118	5,062	4,439	4,456
No. 44 Rocky View	74	469	323	324	273	11,112	11,964	11,784	10,174	10,838
No. 48 Kneehill	3,251	3,273	3,360	3,389	2,868	542	1,107	1,137	1,241	1,206
No. 61 Wainwright	1,268	1,279	1,312	1,461	1,501	1,125	1,204	1,101	1,136	1,152
No. 90 Sturgeon	1,808	1,986	2,197	2,121	2,301	4,551	4,981	6,040	6,391	6,592
All M.D.'s	**20,829**	**22,750**	**26,979**	**27,153**	**26,650**	**33,452**	**36,439**	**72,748**	**72,572**	**76,949**
IMPROVEMENT DISTRICTS										
No. 15	0	736	590	594	711	4,734	4,526	4,912	5,301	5,583
No. 16	0	0	434	690	334	9,339	8,876	8,409	8,531	8,933
No. 18	0	0	1,430	0	810	22,657	22,022	23,572	17,409	20,633
No. 20	0	345	215	358	83	3,909	4,037	4,554	4,778	5,060
All I.D.'s	**9,204**	**13,302**	**6,718**	**4,752**	**5,061**	**107,163**	**107,191**	**90,577**	**85,995**	**89,499**
Provincial Totals Includes Villages	**210,316**	**314,374**	**342,452**	**386,277**	**323,235**	**732,031**	**805,358**	**881,411**	**800,160**	**798,915**

School Boards

The latest year (1987) for which school jurisdiction financial information is available indicated the following surplus/deficit and reserve position for school jurisdictions in the province.

Accumulated Deficit		Accumulated Surplus		Balanced	Reserves	
# of Juris.	$	# of Juris.	$	# of Juris.	# of Juris.	$
28	$4.8 Million	146	$61.5 Million	14	103	$51.6 Million

In relation to the total operating budgets of all school jurisdictions ($1.9 billion) these surpluses and reserves were:

Percentage of Operating Expenditures

Net Surplus	3.1%
Reserves	2.9%
Surplus and Reserves	6.0%

Although this indicates surplus and reserves being generally an insignificant percentage of school jurisdiction budgets, some school boards **have experienced higher percentages.** At the end of 1987 the following twenty-one school jurisdictions with budgets in excess of $1 million experienced combined surpluses and reserves in excess of 15%.

Percentage of Operating Expenditures

School Jurisdiction	Surplus and Reserves	Surplus Only
Rocky Mountain House, S. Div.	24.5	17.9
Neutral Hills S. Div.	30.0	30.0
County of Paintearth	39.9	18.2
Berry Creek S. Div.	21.4	10.3
Starlands S. Div.	25.5	9.7
Mount Rundle S. Div.	21.6	11.1
Exshaw S. Dist.	34.1	34.1
Ft. McMurray P.S.D.	22.7	21.5
Swan Hills S. Dist.	16.9	11.5
Ft. McMurray R.C.S.S.D.	58.8	10.9
Crowsnest Pass S. Div.	19.6	18.7
County of Vulcan	32.1	21.5
Medicine Hat R.C.S.S.D.	33.1	19.4
High Prairie S. Dist.	17.2	5.1
Whitecourt R.C.S.S.D.	17.9	15.2
Glen Avon P.S.S.D.	15.9	8.0
Legal S. Div.	24.2	12.6
Grande Cache S. Dist.	15.0	12.8
Wetaskiwin R.C.S.S.D.	25.8	25.8
Drumheller R.C.S.S.D.	21.7	15.5
Stirling S. Dist.	15.0	15.0

The surpluses and reserves of these school jurisdictions were accumulated for the general reasons indicated previously. Many boards contribute a set amount annually as an operating expense for school bus replacement reserves. Others contribute annually to building and equipment reserves to be utilized when required. Most of the jurisdictions listed have strong property assessment bases to support surpluses and reserves accumulated for these purposes.

In general, it should be noted that school funding reductions for the 1987/88 school year are expected to cause a significant reduction in the accumalated surpluses of school jurisdictions.

4.5 MUNICIPAL AND SCHOOL CAPITAL FINANCING

Municipal Capital Financing

Alberta municipalities have access to a number of provincial grant programs administered by various departments of the government which assist in the acquisition of new assets. Of most significance, are programs administered by Transportation & Utilities, Recreation & Parks, and Environment.

The Alberta Municipal Financing Corporation provides funding to local authorities through long term debenture borrowings to fund capital acquisitions. Municipalities must obtain approval from the Alberta Local Authorities Board for all long-term capital borrowings. The Board has established "Debt Guidelines" which municipalities must fall within in order to obtain Board approval.

Municipalities use several methods for financing capital acquisitions, besides accessing provincial grants and long-term borrowings. Most common is contributions from the current year's revenues, being the tax levy. Many municipalities have set aside reserve funds over a period of time in order to avoid sharp mill rate increases or additional long-term debt when new capital purchases are required. The use of capital reserves is certainly a common method of capital financing. A number of municipalities have accumulated funds from off-site levies on new developments or re-developments to assist in financing capital improvements to roads, recreation facilities, and utility systems which will be required because of these developments. Equipment replacement reserves are also quite commonly used to accumulate funds.

Provincial departments also provide operating grants, both unconditional and conditional, to assist municipalities with a wide range of programs, the most significant being the Municipal Assistance Grant which is paid to all municipalities.

The value of capital fixed assets recorded by Alberta municipalities and equity in fixed assets represent the historical investment a municipality has made in the capital assets it holds on a given date. The primary purpose of recording fixed assets is control and accountability. Fixed assets are not depreciated and the stated values do not necessarily relate to actual cash values.

School Capital Financing and Provincial Support

Support is provided for school buildings in two basic categories:

1. Support for Public and Separate Schools
   - New Construction
   - Building Quality Restoration Program (BQRP)
   - Modernization Program

2. Support for Special Program Facilities
   - Early Childhood Services
   - Special Education

The BQRP is designed to enhance the quality and prolong the life of existing school buildings through replacing failed components, upgrading selected equipment, promoting energy conservation, and upgrading for code requirements. The modernization program is designed to functionally upgrade existing school buildings to accommodate contemporary educational programs, and to undertake major rehabilitations.

The School Buildings Board determines the amount of provincial support for each project, in accordance with the school capital funding formula, provincial priorities and available funding. Local school boards are responsible for submitting project requests and providing support for all costs over the established provincial support level. The actual financing of projects is usually through debenture borrowing from the Alberta Municipal Finance Corporation after prior approval of the Local Authorities Board. Projects financed through short-term capital loans must receive approval from the Minister of Education.

Some BQRP projects are supported through direct capital grants at the time of construction. However, most provincial funding for capital projects is provided through annual grants to support the cost of retiring debt resulting from school construction projects. This provincial funding supports an average of 75 percent of school boards' debt retirement costs for school construction. School boards which have unsupported debt retirement costs in excess of 3 mills on equalized assessment are required to provide a plan to the Minister of Education for reduction of the level of indebtedness.

4.6 MUNICIPAL/SCHOOL BOARD ACCOUNTING PROCEDURES AND FINANCIAL REPORTING

Alberta Municipal Affairs recommends that municipalities have a net cash position of 25% of the current tax levy at year end in order to avoid large short-term borrowings to fund municipal operations until taxes are levied and current year revenues start to flow. The 25% figure is a guideline only and the net cash position is the difference between current liquid assets and current liabilities. There is no requirement that this amount be carried as reserves.

However, in the calculation of the net cash position of a municipality, any reserves which are reported in the annual financial statement as committed reserves are considered to be current liabilities and are included in the

calculation. Municipalities have been required by the Department to analyse and properly allocate their reserves in order that a true net cash position can be determined, particularly if that net cash position is near or below the recommended 25% guideline.

Alberta Municipal Affairs makes no attempt to review the accounts and determine the content as to actual assets, reserves, surpluses, depreciation, etc., nor do they assess the validity of reserves for future requirements. This leaves the control of the accounts to the discretion of the municipalities.

Alberta Education has also provided a system of accounts for school boards with the responsibility of control of the accounts left with the school boards.

For the Improvement Districts, the operating and capital reserves are monitored closely, and adjusted if necessary, by local Advisory Councils and the Improvement Districts Administration of Municipal Affairs to ensure that the reserves are maintained at the proper levels.

5.0 INTERPROVINCIAL COMPARISON OF MUNICIPAL AND SCHOOL FINANCING

5.1 MUNICIPAL GOVERNMENT SERVICES AND TAXATION BY PROVINCE

Comparable data could not be assembled on municipal taxation, service responsibilities and expenditure patterns by province.

5.2 EDUCATION EXPENDITURE COMPARISONS BY PROVINCE

Since 1974, school board per pupil expenditures have grown faster than the rate of inflation as measured by the education price index (EPI) (See Figure 1). Over this period provincial grants per pupil also grew faster than the rate of inflation. School supplementary requisitions per pupil grew faster than either provincial grants per pupil or school board per pupil expenditures. This growth in excess of inflation reflects the cost of additional and expanded educational programs developed to improve the quality of education. These expenditures include the cost of programs and services initiated or mandated by the provincial government which include: early childhood services, special education, curriculum changes, and renovation of physical plants to accommodate fire safety code regulations.

Furthermore, in recent years there has been a tendency for provincial departments of public health and social services to transfer clients and services to school boards without a fully offsetting transfer of resources. These include previously institutionalized "special" students and services such as hearing assessments and remedial speech. Also, the demands by various interest groups for expanded programs and services, such as computer literacy and constitutional or heritage language programs, continue to expand school board budgets.

Teacher salaries account for about 70% of school board operating costs. These salary costs are influenced by the pupil teacher ratio and the general level of teacher salaries. Additional programs combined with smaller class size in traditional programs have resulted in a lowering of the ratio of pupils to certified teachers and increased teacher salary costs per pupil. As indicated in Table 5.1, the Alberta pupil teacher ratio declined from 18.8 to 17.0 over the period 1978 to 1987. Although this decline in the pupil teacher ratio is a major factor in the increase in expenditures by school boards, the 1986 Alberta ratio is close to the national average of 16.5 for that year. Other provinces have also been improving programs and lowering their pupil teacher ratios to the same extent as Alberta.

An increase in general teacher salary levels has contributed to growth in per pupil expenditure with the average Alberta teacher salary increasing by 77% between 1980 and 1986. More recent data (see Table\5.2) for teachers with four years of education show Alberta's maximum rate to be the second highest of all the provinces.

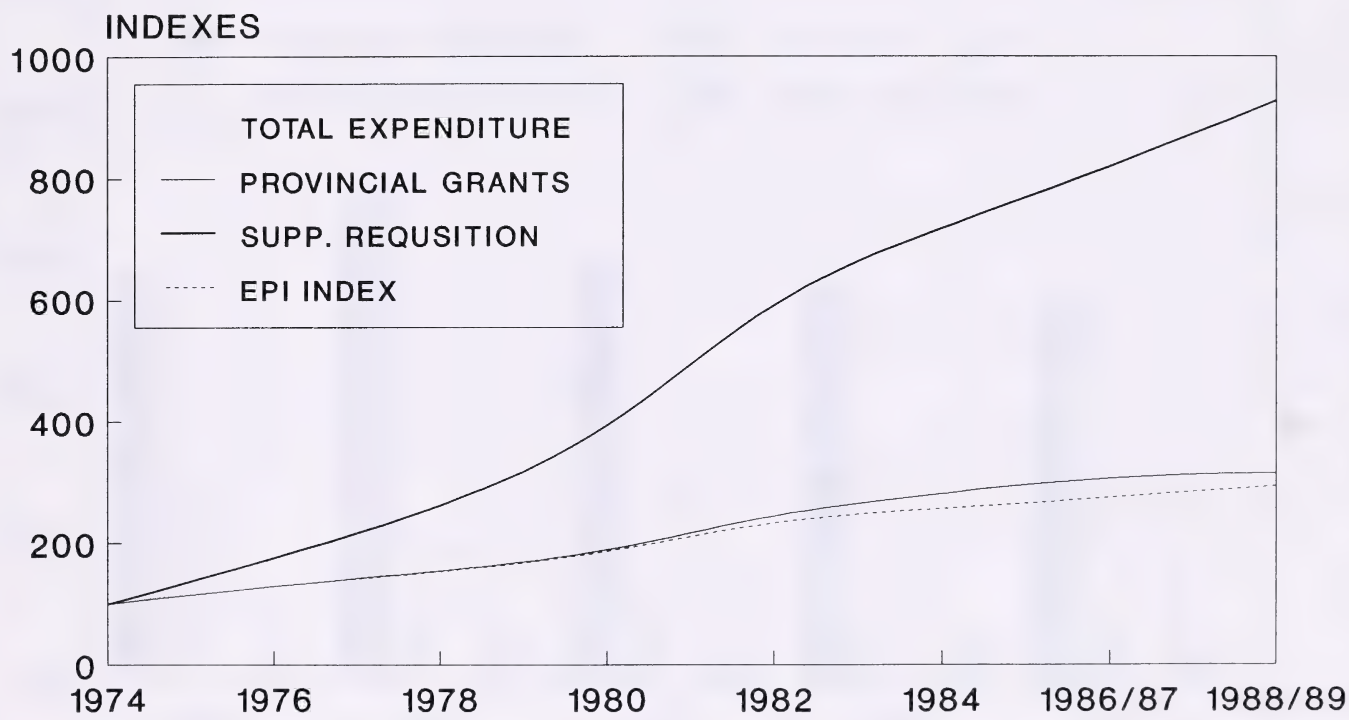
A survey of provinces (see Table 5.3) has indicated that Alberta has the second lowest ratio of students to school districts among all provinces. The number of districts and the relatively small scale operation of many of them may be contributing to higher administrative costs per pupil in Alberta than in most other provinces.

Although teacher salary scales are higher in Alberta and jurisdiction administrative costs may be higher in Alberta because of small jurisdiction size the overall level of Alberta's expenditures is in line with that in other provinces. Most recent estimates indicate Alberta is fourth among all provinces in school board operating expenditures per pupil (see Table 5.4).

The proportion of school board revenue arising from property taxation (i.e. School Foundation non-residential levy plus supplementary requisitions) has risen substantially since 1974 when the School Foundation levy was removed from residential property. The provincial school foundation levy on non-residential property has remained relatively stable at about 8% of revenue from 1977 to 1987 (see Figure 2). Over the same period the school supplementary requisition increased from about 20% of revenue to 33%. At the present time property taxation (school foundation levy plus supplementary requisition) accounts for approximately 40% of school board revenue. In comparison to many other provinces this percentage indicates a relatively low reliance on property taxation for education. Alberta has the lowest percentage of school board revenue arising from property taxes (see Table 5.5) for provinces west of Quebec. In Quebec and the Maritimes school boards have very limited access to property taxes.

FIGURE 1

PROVINCIAL SCHOOL BOARDS
EXPENDITURE/GRANT PATTERNS
PER FTE* PUPIL



Source: Alberta Education,
Finance & Support Services
* Full Time Equivalent

FIGURE 2

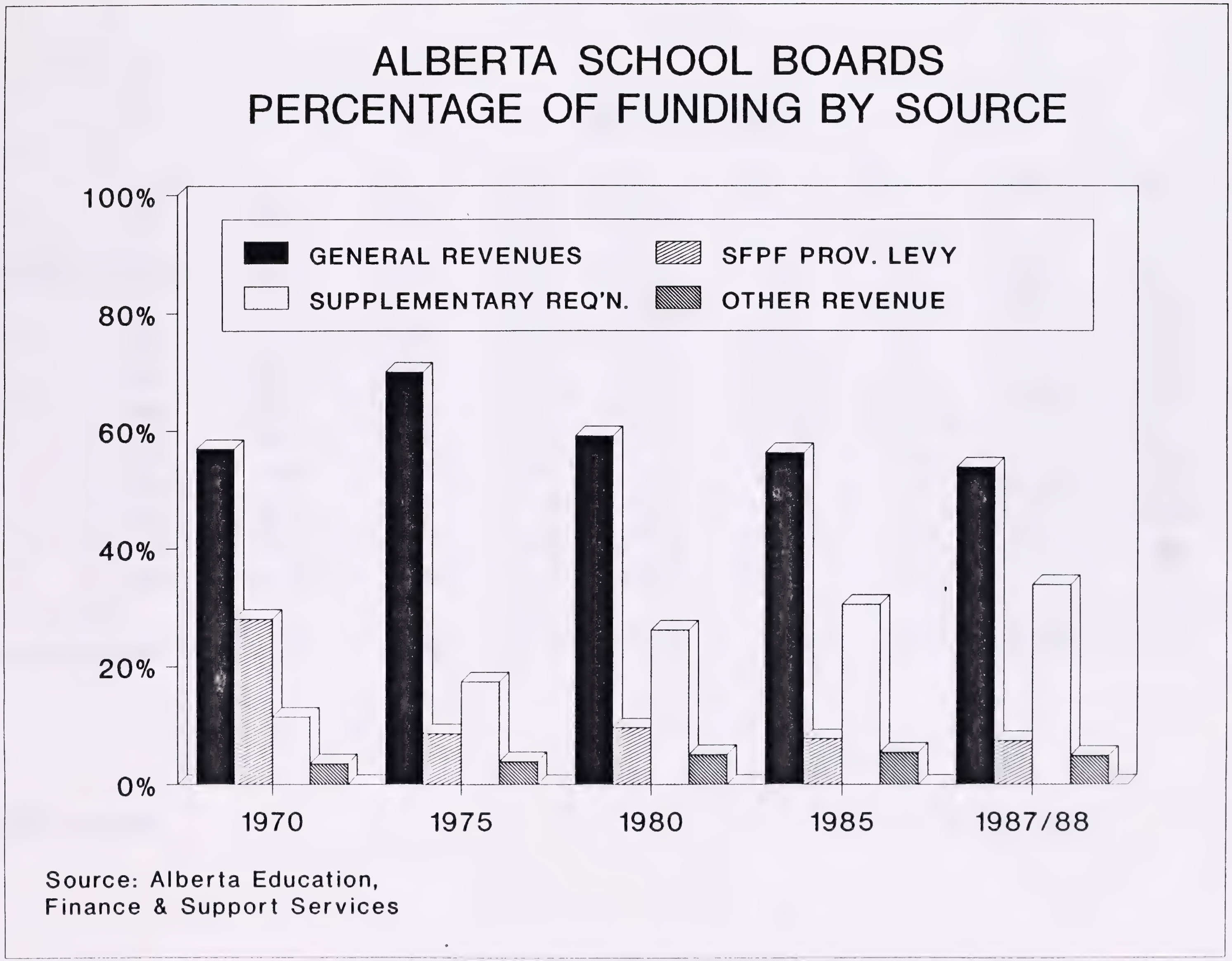

ALBERTA SCHOOL BOARDS
PERCENTAGE OF FUNDING BY SOURCE
GENERAL REVENUES
SUPPLEMENTARY REQ'N.
SFPF PROV. LEVY
OTHER REVENUE
100%
80%
60%
40%
20%
0%
1970
1975
1980
1985
1987/88
Source: Alberta Education,
Finance & Support Services

Table 5.1

Provincial Average
Pupil-Teacher Ratios

	Year	B.C.	Alta.	Sask.	Man.	Ont.	Que.	N.B.	P.E.I.	N.S.
Pupil/Teacher	1978	18.12	18.76	18.54	17.34	18.68	14.94	20.40	18.48	17.57
Ratio	1979	17.81	18.57	18.06	17.07	18.52	14.62	19.95	18.51	17.12
	1980	17.75	18.21	17.47	16.70	18.37	14.51	19.43	18.39	17.02
	1981	17.30	17.95	17.25	16.62	18.08	14.43	19.08	18.33	16.76
	1982	16.65	17.75	16.97	16.09	17.88	14.38	18.98	18.02	16.53
	1983	17.11	17.11	16.47	15.93	17.66	14.66	19.15	18.18	16.68
	1984	17.08	16.72	16.87	15.85	17.43	14.96	19.15	18.11	16.48
	1985	18.05	16.70	16.65	15.63	17.22	14.93	18.89	17.97	16.35
	1986	17.71	16.82	16.82	15.48	17.08	15.10	18.29	17.79	16.39
	1987	17.36	17.00	16.21	15.28	16.90	na	na	na	na
% Chance Since 1978		-4.19	-9.38	-12.57	-11.88	-9.53	1.07	-10.34	-3.73	-6.72

na - not available

Table 5.2

Canadian Teacher Salary Comparison
Category 4 Minimum

Province	1986/87	1987/88	1988/89	Steps to Maximum
Newfoundland	20,568	21,442	22,300	8
Prince Edward Island	19,833	21,420	22,277	10
Nova Scotia	23,958	24,676	25,677	11
New Brunswick	22,096	23,433	[2]	11
Quebec	23,644	24,808	[2]	14
Ontario - Elementary	24,084	25,308	26,423	14
- Secondary	24,204	25,362	26,637	14
Manitoba [1]	24,997	26,115	26,941	10
Saskatchewan [1]	23,328	23,328	24,028	10
British Columbia	23,693	24,493	26,208 [3]	10/11
Alberta	24,490	25,128	25,827	10/11

1. Based on Calendar Year
2. Currently Under Negotiations
3. Based on Three Teacher Settlements

Table 5.3

Interprovincial Comparison of Students Per District (1986/87)

Province	Total Enrolment	# Operating School Dist.	Pupils Per District	Rank
British Columbia	448,861	75	5,985	(3)
Alberta	425,375	143	2,975	(9)
Saskatchewan	200,205	116	1,726	(10)
Manitoba	181,163	54	3,355	(7)
Ontario	1,782,539	161	11,072	(1)
Quebec	941,643	217	4,339	(5)
New Brunswick	139,023	42	3,310	(8)
Nova Scotia	170,868	22	7,767	(2)
Prince Edward Island	24,487	5	4,897	(4)
Newfoundland	139,378	35	3,982	(6)

Note: The average number of pupils per district does not provide any detail on the size distribution of the districts. Alberta districts range in size from 15 to 79,822 pupils with the median being around 1,000.

Source: Alberta Education, Finance & Support Services Telephone Survey.

Table 5.4

Interprovincial Comparisons
School Board Expenditure Per Pupil

Province	1985/86 $	Est. Rank	1986/87 $	Est. Rank	1987/88 $	Est. Rank
British Columbia	3,560	(6)	3,779	(6)	4,022	(5)
Alberta	4,085	(3)	4,339	(3)	4,320	(3)
Saskatchewan	3,761	(5)	3,804	(5)	3,891	(6)
Manitoba	3,887	(4)	4,003	(4)	4,254	(4)
Ontario	4,237	(2)	4,516	(2)	4,882	(2)
Quebec	4,863	(1)	5,090	(1)	N/A	(1)
New Brunswick	3,160	(8)	3,273	(8)	N/A	N/A
Nova Scotia	3,354	(7)	3,501	(7)	3,703	(7)
Prince Edward Island	2,947	(9)	3,117	(9)	N/A	N/A
Newfoundland	2,939	(10)	3,019	(10)	3,291	(8)

Note: Operating expenditure excludes debt retirement and capital payments, but it includes superannuation estimates for pensions.

Saskatchewan, Manitoba, Ontario, and Nova Scotia Reported on a Calendar Year Basis

Sources: The Financing of Elementary and Secondary Education in Canada, CMEC, October 1988
Phone Survey, November 1988

Table 5.5

Provincial Education Funding Comparison
(School Board Revenue Sources)

	Provincial			Local				Combined Provincial and Local			
Province	General Revenues	Property Taxes	Total	Property Taxes	Other Revenue	Total	Grand Total	General Revenues	Property Taxes	Other Revenue	Total
British Columbia 1986/87 (Est.)	50.2%	16.7%	67.0%	33.1%	0.0%	33.1% *	100.0%	50.2%	49.8%	0.0%	100.0%
Alberta 1987 (Est.)	55.7%	7.6%	63.3%	31.8%	4.9%	36.7%	100.0%	55.7%	39.4%	4.9%	100.0%
Saskatchewan 1986/87 (Est.)	55.9%	0.0%	55.9%	44.1%	0.0%	44.1%	100.0%	55.9%	44.1%	0.0%	100.0%
Manitoba 1987 (Est.)	52.0%	24.0%	76.0%	23.0%	1.0%	24.0%	100.0%	52.0%	47.0%	1.0%	100.0%
Ontario 1986 (Est.)	45.5%	0.0%	45.5%	54.5%	0.0%	54.5%	100.0%	45.5%	54.5%	0.0%	100.0%
Quebec 1985/86 (Est.)	91.7%	0.0%	91.7%	4.3%	4.0%	8.3%	100.0%	91.7%	4.3%	4.0%	100.0%
Nova Scotia 1987 (Est.)	81.4%	0.0%	81.4%	15.7%	2.9%	18.6%	100.0%	81.4%	15.7%	2.9%	100.0%

* The Provincial Government's Homeowner Grant also applies to Local Property Taxes, thus the Local share is overstated.

Sources: The Financing of Elementary and Secondary Education in Canada, CMEC, December 1986
Phone Survey - June 1987

APPENDIX I

LIST OF FACTORS INFLUENCING INDUSTRY LOCATION

LIST OF FACTORS INFLUENCING INDUSTRY LOCATION

As part of the Task Force requirements, the following list prepared by industry, identifies the principal factors influencing the location of any industry or plant in a specific area. The list has not been prioritized as each factor may be of greater or lesser importance for any given industry or plant.

- Government Incentives; Federal, Provincial, Municipal
- Availability and Cost of Utilities Such as Water, Power
- Taxation Policies; Federal, Provincial, Municipal
- Regulatory Environment; Federal, Provincial, Municipal
- Availability and Cost of Raw Material Inputs, e.g., Feedstock
- Transportation Costs to Market
- Labour Cost, Availability and Skill for Both Construction and Operations
- Availability of Technical Assistance and Service Companies
- Tariff and Non-Tariff Barriers
- Supply and Demand of Product in Area
- Infrastructure, e.g., Roads, Sewers, etc.
- Availability and Cost of Land
- Environmental Restrictions, Regulations
- Political Stability
- Possible Synergism With Nearby Industry
- Positive Social Environment Re: Willingness of Local Population to Accept New Industry

APPENDIX II

PROPERTY TAX MODELS AND DETAILED INTERPROVINCIAL TAX DATA

INTERPROVINCIAL COMPARISON OF PROPERTY AND BUSINESS TAXES

A survey was conducted to compare tax levels for specific properties in four Provinces - British Columbia, Alberta, Ontario, and Quebec.

Three types of industrial properties were hypothetically placed into three different municipalities within each province, and the representative taxes each property would bear was estimated.

The three model properties were:

1. A 110,000 square foot warehouse with an attached 25,000 square foot office.

2. A food products manufacturing plant with investment of $35 million. The make-up of the plant is 30% structures used in administration, storage, maintenance and plant housing; and 70% machinery and equipment used in processing and manufacturing.

3. An oil refinery producing 50,000 barrels per day with investment of $500 million. The plant is 10% structures used in administration, storage, maintenance and shelters; and 90% machinery and equipment used in processing and manufacturing.

The tax estimates include all real property and business tax for municipal, school, hospital, recreation, and other purposes.

The three models were also hypothetically placed into six Alberta municipalities and a tax estimate provided.

No attempt was made to adjust for the economic impact on the tax structure which may result from locating plants within the various municipalities (the refinery may have a significant impact while the warehouse would have little effect).

The following tables 1 through 5 provides a summary of tax estimates.

Table 1

Summary of Estimated 1988 Property Taxes on Model Properties by Province

	Refinery	Food Processing	Warehouse
Alberta [1]			
*County of Strathcona	$ 4,958,000	$ 376,600	$ 69,200
City of Fort Saskatchewan	$ 4,315,500	$ 362,500	$ 60,300
City of Edmonton	$ 1,451,000	$ 207,600	$ 123,100
County of Red Deer	$ 3,885,500	$ 318,300	$ 49,600
County of Lac Ste. Anne	$ 4,586,000	$ 372,400	$ 59,900
M.D. of Sturgeon	$ 3,551,500	$ 289,700	$ 46,400
British Columbia [2]			
*Burnaby	$ 5,771,000	$ 561,000	$ 193,200
Vancouver	$ 9,060,000	$ 563,000	$ 209,800
Saanich	$ 5,475,000	$ 616,000	$ 190,500
Ontario			
*City of Mississauga	$ 1,640,000	$ 224,200	$ 172,330
City of London	$ 1,601,500	$ 237,870	$ 249,750
City of Guelph	$ 1,619,500	$ 250,140	$ 250,140
Quebec			
*City of Sainte-Foy [3]	$ 2,613,530	$ 788,230	$ 119,710
Town of Bécancour	$ 1,007,450	$ 325,740	$ 40,760
Town of Chandler	$ 1,686,400	$ 514,080	$ 69,480

* municipalities chosen for the Conference Board study

NOTES TO TABLE 1
ON ESTIMATED PROPERTY TAXES BY PROVINCE

1. For the City of Edmonton, figures include a business tax in place of the M\& E tax for the refinery and food processing plant. A business tax is also applied on the warehouse in the City of Edmonton, but not in the other Alberta municipalities (none of the other municipalities employ a business tax).

2. In British Columbia, the estimated taxes are based on the new industrial assessment manual which was brought into use in 1988, and will apply to the 1989 tax year.

   Due to the revised procedure, assessment increases will be phased-in for existing plants so that taxes do not increase by more than 20% in the first year (1989). There may also be some future adjustment in industrial mill rates to offset the increase in the assessment base.

   For purposes of the models, it is assumed that new assessment practices would come into effect immediately (no phase-in period). However, it is likely that adjustments to the industrial mill rates would result in a lower tax levels than shown for the model refinery property in British Columbia.

3. Taxes are higher in the City of Sainte-Foy, relative to the other Quebec municipalities, primarily due to the annual fixed service connection charges for water and sewer plus higher business taxes (refer to Table 5 for details).

Table 2

Province of Alberta
Estimated 1988 Property Taxes by Municipality

Refinery

	Land	Structures & Improvements	Machinery & Equipment	Total Property Taxes	Business Taxes	Utility Charges [1]	Total Local Taxes
County of Strathcona	$ 71,000	$ 789,000	$ 4,098,000	$ 4,958,000	$ -	$ -	$ 4,958,000
City of Fort Saskatchewan	$ 26,000	$ 576,000	$ 3,713,500	$ 4,315,500	$ -	$ -	$ 4,315,500
City of Edmonton	$140,000	$ 949,000	$ -	$ 1,089,000	$ 362,000	$ -	$ 1,451,000
County of Red Deer	$ 12,000	$ 625,500	$ 3,248,000	$ 3,885,500	$ -	$ -	$ 3,885,500
County of Lac Ste. Anne	$ 3,000	$ 740,000	$ 3,843,000	$ 4,586,000	$ -	$ -	$ 4,586,000
M.D. of Sturgeon	$ 6,000	$ 572,500	$ 2,973,000	$ 3,551,500	$ -	$ -	$ 3,551,500

Food Processing Plant

	Land	Structures & Improvements	Machinery & Equipment	Total Property Taxes	Business Taxes	Utility Charges [1]	Total Local Taxes
County of Strathcona	$ 11,500	$ 153,000	$ 211,800	$ 376,600	$ -	$ -	$ 376,600
City of Fort Saskatchewan	$ 3,400	$ 153,000	$ 206,100	$ 362,500	$ -	$ -	$ 362,500
City of Edmonton	$ 39,100	$ 131,600	$ -	$ 131,600	$ 36,900	$ -	$ 207,600
County of Red Deer	$ 4,200	$ 133,900	$ 180,200	$ 318,300	$ -	$ -	$ 318,300
County of Lac Ste. Anne	$ 700	$ 158,400	$ 213,300	$ 372,400	$ -	$ -	$ 372,400
M.D. of Sturgeon	$ 2,100	$ 122,600	$ 165,000	$ 289,700	$ -	$ -	$ 289,700

Warehouse

	Land	Structures & Improvements	Machinery & Equipment	Total Property Taxes	Business Taxes	Utility Charges [1]	Total Local Taxes
County of Strathcona	$ 4,400	$ 64,800	$ -	$ 69,200	$ -	$ -	$ 69,200
City of Fort Saskatchewan	$ 1,600	$ 58,700	$ -	$ 60,300	$ -	$ -	$ 60,300
City of Edmonton	$ 14,400	$ 75,500	$ -	$ 89,900	$ 33,200	$ -	$ 123,100
County of Red Deer	$ 2,200	$ 47,400	$ -	$ 49,600	$ -	$ -	$ 49,600
County of Lac Ste. Anne	$ 200	$ 59,700	$ -	$ 59,900	$ -	$ -	$ 59,900
M.D. of Sturgeon	$ 2,200	$ 44,200	$ -	$ 46,400	$ -	$ -	$ 46,400

Table 3

Province of British Columbia
Estimated 1988 Property Taxes by Municipality

	Land	Structures & Improvements	Total Property Taxes	Business Taxes	Utility Charges	Total Local Taxes
Refinery						
Burnaby	$1,311,000	$ 4,270,000	$ 5,581,000	$ -	$ 190,000	$ 5,771,000
Vancouver	$3,178,000	$ 5,882,000	$ 9,060,000	$ -	$ -	$ 9,060,000
Saanich	$ 704,000	$ 4,601,000	$ 5,305,000	$ -	$ 170,000	$ 5,475,000
Food Processing Plant						
Burnaby	$ 186,000	$ 275,000	$ 461,000	$ -	$100,000	$ 561,000
Vancouver	$ 275,000	$ 288,000	$ 563,000	$ -	$ -	$ 563,000
Saanich	$ 155,000	$ 361,000	$ 516,000	$ -	$100,000	$ 616,000
Warehouse						
Burnaby	$ 36,900	$ 156,300	$ 193,200	$ -	$ -	$ 193,200
Vancouver	$ 38,700	$ 171,100	$ 209,800	$ -	$ -	$ 209,800
Saanich	$ 31,900	$ 158,600	$ 190,500	$ -	$ -	$ 190,500

Table 4

Province of Ontario
Estimated 1988 Property Taxes by Municipality

Refinery

	Land	Structures & Improvements	Total Property Taxes	Business Taxes	Utility Charges	Total Local Taxes
City of Mississauga	$ 626,000	$ 398,000	$ 1,024,000	$ 614,000	$ -	$ 1,640,000
City of London	$ 370,000	$ 631,000	$ 1,001,000	$ 600,500	$ -	$ 1,601,500
City of Guelph	$ 376,000	$ 636,500	$ 1,012,500	$ 607,000	$ -	$ 1,619,500

Food Processing Plant

	Land	Structures & Improvements	Total Property Taxes	Business Taxes	Utility Charges	Total Local Taxes
City of Mississauga	$ 66,400	$ 73,800	$ 140,200	$ 84,000	$ -	$ 224,200
City of London	$ 30,900	$ 117,700	$ 148,600	$ 89,200	$ -	$ 237,800
City of Guelph	$ 38,900	$ 117,400	$ 156,300	$ 93,800	$ -	$ 250,100

Warehouse

	Land	Structures & Improvements	Total Property Taxes	Business Taxes	Utility Charges	Total Local Taxes
City of Mississauga	$ 13,600	$ 94,100	$ 107,700	$ 64,600	$ -	$ 172,300
City of London	$ 5,600	$ 150,500	$ 156,100	$ 93,700	$ -	$ 249,800
City of Guelph	$ 6,400	$ 149,900	$ 156,300	$ 93,800	$ -	$ 250,100

Table 5

Province of Quebec
Estimated 1988 Property Taxes by Municipality

	Land	Structures & Improvements	Total Property Taxes	Business Taxes	Utility Charges [1]	Total Local Taxes
Refinery						
City of Sainte-Foy	$104,170	$ 991,380	$ 1,095,550	$ 834,990	$ 682,990	$ 2,613,500
Town of Bécancour	$ 30,480	$ 729,640	$ 760,120	$ 187,500	$ 59,830	$ 1,007,400
Town of Chandler	$ 73,810	$ 1,320,090	$ 1,393,900	$ 229,500	$ 63,000	$ 1,686,400
Food Processing Plant						
City of Sainte-Foy	$ 13,040	$ 286,730	$ 299,770	$ 278,640	$209,820	$ 788,200
Town of Bécancour	$ 2,290	$ 211,010	$ 213,300	$ 52,600	$ 59,840	$ 325,700
Town of Chandler	$ 5,540	$ 381,780	$ 387,320	$ 63,760	$ 63,000	$ 514,000
Warehouse						
City of Sainte-Foy	$ 4,350	$ 43,010	$ 47,360	$ 44,020	$ 28,330	$ 119,700
Town of Bécancour	$ 760	$ 31,650	$ 32,410	$ 7,990	$ 360	$ 40,700
Town of Chandler	$ 1,850	$ 57,260	$ 59,110	$ 9,730	$ 640	$ 69,500

1 In the City of Sainte-Foy, most of the utility charges are fixed annual service connection fees for water and sewer.

APPENDIX III

CONFERENCE BOARD OF CANADA STUDY

FINAL REPORT - JANUARY 1989

Final Report
CONFIDENTIAL

Interprovincial Comparison of Tax Systems in Food Processing and Petroleum Refining Industries

by Jacek Warda
International Business Research Centre

January 1989

Introduction

This report presents the findings of a study carried out by The Conference Board of Canada and sponsored by the Industrial Property Taxation Task Force established by the Minister of Alberta Economic Development and Trade, Municipal Affairs and Education. The mandate of the Task Force is to examine the tax burden on industry in Alberta and compare it with that in other provinces.

This study provides the interprovincial comparison of tax systems and determines their relative competitiveness. The two manufacturing industries selected for the study were food processing and petroleum refining. The provincial tax systems compared were those of Alberta, British Columbia, Ontario and Quebec. The corporate taxes examined were property tax, federal and provincial corporate income tax, capital tax, payroll tax and provincial and federal sales tax.

This research capitalizes on expertise gained by the Conference Board during a recently completed three-year program of research on international tax comparisons.[1] The analysis in this study was conducted within the framework of cash flow modelling adopted for that program of tax comparisons. To carry out this study, the Conference Board developed after-tax cash flow models for a typical food processing plant and a petroleum refinery.

In accordance with the conditions under which the Conference Board conducts financed research, the ultimate responsibility for the design and method of research and the content of the final report rests with the Conference Board. This report was prepared by Jacek Warda, Senior Research Associate, International Business Research Centre, under the general guidance of Tancredi Zollo, Director, International Studies and Service Development Group, The Conference Board of Canada.

This report has four sections. Section 1 examines Canadian federal and provincial tax systems. Section 2 details the methodology of the study. Section 3 briefly explains the data-gathering process and the development of the industry plant models. Finally, Section 4 presents the results of the simulation analysis.

Highlights

Food Processing Industry

- In the basic-case scenario, Ontario's tax system is the most competitive among the provincial tax systems examined. The tax system of Alberta is second. The tax systems of British Columbia and Quebec follow at a relatively distant third and fourth place (see Table 1).
- Under the variable profitability sensitivity simulation, the Ontario tax system remains the most competitive in both the high-profitability and low-profitability cases. Ontario is followed by Alberta and the remaining provinces follow in the same order as in the basic-case scenario.
- Under a mixed debt-to-equity financial option sensitivity simulation, the tax system of Ontario remains the most competitive, with the other provinces' tax competitiveness positions unchanged.
- Property taxes and corporate income tax are the most significant factors affecting the competitiveness of provincial tax systems.
- When combined federal and provincial taxes are compared, the ranking of provinces remains unaltered: Ontario is the most competitive, followed by Alberta, British Columbia and Quebec (see Table 2).

Petroleum Refining Industry

- In the basic-case scenario, Quebec's tax system is the most competitive among the provincial tax systems examined. The tax system of Ontario is second. The tax systems of Alberta and British Columbia follow at a relatively distant third and fourth place (see Table 1).
- Under the variable profitability sensitivity simulation, the Quebec tax system remains the most competitive in the high-profitability case. Ontario's tax system is the most competitive in the low-profitability case. The tax systems of Alberta and British Columbia are in third and fourth place, respectively, in both sensitivity cases.
- Under a mixed debt-to-equity financial option sensitivity simulation, the tax system of Quebec remains the most competitive with other provinces' tax competitiveness positions unchanged.
- Similar to the food processing industry, property taxes and corporate income tax have the most influence on the competitiveness of provincial tax systems.
- When combined federal and provincial taxes are compared, the ranking of provinces remains unaltered: Quebec is the most competitive, followed by Ontario, Alberta and British Columbia (see Table 2).

1 Corporate Tax System in Canada

The analysis in this study is carried out on the assumption that the Stage 1 federal tax reform provisions have been fully implemented. The provincial tax systems include all relevant changes to corporate taxation instituted by the recent provincial budgets.

Canadian Corporate Tax Reform

The tax reform provisions set out in the federal budget of February 10, 1988, represented Stage 1 of tax reform in Canada.

A major change under tax reform is the 8 percentage point decrease in the general corporate income tax rate, from 36 per cent to 28 per cent.

Manufacturing income tax rates will also be lowered, although on a graduated basis to reach 23 per cent in 1991. The manufacturing and processing tax deduction will be reduced from 6 percentage points to 5 percentage points in 1991.

Among other changes, the most visible is a reduction in the attractiveness of the tax depreciation system, particularly for manufacturing companies. The generous depreciation allowances are being reduced to more moderate levels. The most radical change is the slowing down of depreciation of Class 29 assets (manufacturing and processing equipment) from a 3-year write-off to a 25 per cent declining balance write-off. Buildings will be depreciated at 4 per cent annually, down by 1 percentage point. The depreciation allowance will now be calculated on an "adjusted" put-in-service basis.[2] The half-year rule applicable to depreciation claimed in the first year of service will be maintained.

The federal government's White Paper on tax reform also proposes that the 3 per cent corporate income surtax be maintained until Stage 2 of tax reform comes into effect. This stage of reform will replace the existing federal sales tax system with one incorporating the concept of value added. Until then, a modified federal sales tax system will be in effect: the tax base for some commodities will be expanded from producer price to wholesale price.

An entirely novel proposition in the federal tax reform package is the telecommunications tax. This tax will be levied on the corporate sector and individuals at 10 per cent of the cost of broadly defined telecommunication services.[3]

Table 3 summarizes the federal corporate tax provisions applicable to both the food processing and petroleum refining industries.

Raw materials and machinery and equipment for direct use in the manufacturing process are exempt from the federal sales tax and not applicable to the industries in this study. However, federal sales tax is applicable to building materials. Customs duties on imported machinery and equipment are eligible for remission, and hence are not applicable.

Provincial Corporate Tax System

The corporate tax systems of the provinces consist of more diversified sources of tax revenue than the federal tax system. Apart from income taxes and commodity taxes, the provincial system includes, in some provinces, capital taxes and payroll taxes. The taxes applicable to this study are summarized in Table 3.

Provincial Income Tax

The rate at which corporations are taxed differs significantly among provinces. Alberta, British Columbia, Ontario and Quebec—the provinces considered in this study—currently levy income tax at rates of 9 per cent, 14 per cent, 15.5 per cent and 5.9 per cent, respectively. Ontario's tax system allows a 1 percentage point credit to manufacturing and processing firms, bringing the tax rate to 14.5 per cent of taxable income. Alberta's income tax rate applicable to

manufacturing and processing operations is a temporarily reduced rate and will return to its regular level of 15 per cent in 1990.

In 1987, Quebec doubled its refundable research and development (R & D) tax credit to corporations. The 20 per cent tax credit is applied on salaries and wages paid in Quebec for R & D carried out in Quebec. Moreover, the credit is exempt from Quebec taxation. Also, the federal R & D tax credit ceased to be taxable by Quebec corporate income tax.

Several important changes to corporate income taxation have been introduced in 1988 in Ontario and Quebec. These changes are discussed below.

Ontario Budget, April 20, 1988

The income tax changes announced in the Ontario budget that will affect this province's manufacturing corporations include manufacturing and processing current cost adjustment and research and development super allowance.

Manufacturing and processing current cost adjustment is a direct deduction from corporate income otherwise subject to tax in Ontario. This incentive is provided for the purchase of new manufacturing and processing machinery and equipment (Class 29) assets for use in Ontario. The deduction for purchases made in 1989 is 10 per cent, and for purchases made after 1989, 15 per cent of the depreciable capital cost of the machinery and equipment is deductible. This is in addition to capital cost allowance claimed.

Research and development super allowance is a direct deduction from Ontario taxable income allocated for research and development expenditures that qualify for the federal research and development tax credit. The deduction for large companies is 25 per cent of the net qualifying expenditures after the federal research and development tax credit is claimed.

There is also a new incentive for increases in research and development expenditures. A corporation is eligible to deduct 50 per cent of its incremental expenditures. Qualifying incremental expenditures are the average of research and development expenditures incurred in the three immediately preceding taxation years.[4]

Quebec Budget, May 12, 1988

The recent Quebec budget has also introduced some changes to its corporate taxation that will influence the tax position of manufacturing corporations based in this province. The provision applicable to this study is an incentive depreciation deduction.

Business acquiring new assets for use in Quebec manufacturing and processing activities are now eligible for a 100 per cent deduction of the acquisition cost of such assets from Quebec taxable income.

These assets include Class 29 manufacturing and processing machinery and equipment and some Class 10 assets, including computer systems and software. The eligible assets are exempt from the federal half-year rule of depreciation and can be written off fully in the year of acquisition.

Provincial Retail Sales Tax

All provinces included in this study except Alberta levy retail sales taxes. Sales tax in British Columbia is currently 6 per cent of the sale price of property. The sale price includes installation, transportation and financing charges, as well as any customs duties and excise taxes. This tax does not apply to raw materials or intermediate products. However, machinery and equipment and construction materials are taxable, as the manufacturer is considered to be the final user of these goods.

In Ontario, domestic and foreign imports as well as goods produced in the province are subject to an 8 per cent retail sales tax. Raw materials and intermediate inputs, with the

exception of construction materials, are tax-exempt. Unlike British Columbia, Ontario exempts machinery and equipment used in manufacturing.

In Quebec, the retail sales tax is levied at 9 per cent of the sale price of property. The sale price includes charges for installation, service and transportation as well as customs duties and excise taxes. Raw materials are not subject to the tax. Similarly, machinery and equipment used for the production of movable property, such as canola oil in the food processing industry or gasoline in the petroleum refining industry, is also exempt.

In both the food processing and petroleum refining industries, construction materials are the only input subject to Quebec and Ontario sales tax; machinery and equipment are also subject to sales tax in British Columbia.

In all the provinces examined, the labour component of buildings is not subject to sales tax.

Capital Tax

Ontario and Quebec levy a capital tax of 0.3 per cent and 0.48 per cent, respectively, on a company's taxable capital. Concessionary rates or exemptions from capital tax may be granted in some cases, particularly for small companies. Major items of taxable capital include paid-up capital (or share capital), retained earnings, and loans and advances.

Payroll Tax

The only payroll tax applicable to this study is the Quebec Health Insurance Plan contribution. At present, the employer's contribution is 3.2175 per cent of the total salaries subject to contribution. There is no upper limit for this tax. Total salary includes remuneration from an office or employment, remunerations in kind, commissions, tips, gratuities, and taxable benefits.

Property Tax

The establishments analysed in this study have to pay property tax. The annual property taxes were estimated separately and are presented in Table 4.

2 Measuring the Competitiveness of Provincial Tax Systems

The basis for this study's comparative tax analysis is the Alberta plant model's after-tax cash flow profile. Two Alberta-based industries were selected—food processing and petroleum refining—and the specific products considered in the analysis were canola oil and meal, and gasoline and other fuels. The after-tax cash flow models of a typical food processing plant and a typical petroleum refining plant are examined under various provincial tax regimes. The competitiveness of Alberta's tax system is examined by replacing Alberta's tax system with those of each of the other three provinces while holding other variables constant. These other variables include the annual production and selling prices, the initial outlay or investment cost involved in building the plant and making it operational, and the annual cost structure, reflecting both production and administration costs. Information on these costs was gathered from major Alberta manufacturers of the selected products, and thus represent an accurate profile of the costs incurred by a typical business in the province.

Scenarios and Assumptions

To ensure that the flexibility and advantages of each province's tax system are fully captured by the analysis, each system was examined under several scenarios. These include a basic case and sensitivity cases. The basic case represents an average profitability or average revenue-cost structure scenario for each plant model. Basic-case simulation is performed assuming full equity financing of the investment.

Two types of sensitivity scenarios are analysed in the study. The first deals with the impact of variable profitability on the plant model's after-tax cash flow. The second sensitivity simulation investigates the impact of a debt/equity financial option on the after-tax cash flow profile of a plant model. In this case, investment financing varies according to typical debt-to-equity ratios.

The entire analysis is carried out on the so-called "flow-through" assumption (i.e., the establishment is fully integrated into a parent corporation's financial structure). The parent corporation is assumed to be profitable; thus, losses in the initial years of the establishment's operation, as well as various tax incentives earned in a given tax year, can be immediately credited against positive corporate income.[5]

The Model

The provincial corporate tax systems are examined and compared by applying a discounted cash flow to the plant model in each industry. This approach uses the model's discounted after-tax cash flow to calculate a relative index of tax payments under each scenario. ***This index of comparison of relative tax burden, or the so-called "tax competitiveness", is the establishment's discounted accumulated tax payments divided by its discounted accumulated cash flow before taxes.***

The analysis uses a 5 per cent annual discount rate; at higher discount rates a negative accumulated before-tax cash flow was generated in one of the industries, making the comparisons inconsistent. A 5 per cent discount rate also takes into account the time value of money while ensuring that interprovincial comparisons are feasible. However, the choice of discount rate may affect the results of this analysis.

Some Issues in Assessing Tax Competitiveness

It is important to bear in mind that the results of this analysis are sensitive to the economic assumptions, as well as the assumptions made in the calculation of taxes. The economic assumptions are pertinent to the specific plant model in each industry and may not represent the given industry as a whole. Consequently, generalization of the results must be made with care.

3 Development of Plant Models

The initial step in assessing the impact of interprovincial tax differences on tax competitiveness was to develop an after-tax cash flow profile for a typical plant model in each industry. This required information on investment, revenue, cost structure and escalation rates. The escalation rates applied to the plant model are presented in Tables 5 and 6. One firm in each industry was selected and asked to supply necessary information. Alberta Food Products represented the food processing industry and Shell Canada Limited represented the petroleum refining business.

Period of Operation

The operation period of a food processing plant is 20 years including a three-year construction period. Following the construction period, it takes an additional three years to achieve planned operation of the plant, with phase-in production amounting to 60 per cent of planned output in year four, 75 per cent in year five and 90 per cent in year six.

The petroleum refining plant is assumed to have a 20-year period of operation as well, including a three-year construction period. Following the construction period it takes an additional two years to achieve planned operation with phase-in production amounting to 70 per cent of planned output in year four and 85 per cent of planned output in year five.

4 Interprovincial Comparison of Tax Systems: Simulation Analysis

The interprovincial comparison of tax systems is discussed separately for the food processing and petroleum refining industries. The comparison includes an analysis of the basic case followed by two sensitivity simulations—a variable profitability case and a mixed debt-to-equity financial option case. The former examines the sensitivity of after-tax cash flow as a result of a higher or lower income and therefore captures the extent to which tax burden depends on income level. The latter simulation examines the sensitivity of after-tax cash flow to the choice of financing instruments.

The analysis examines scenarios using the fully implemented reformed tax system. In this study, ***"tax competitiveness" refers to an index of relative tax burden***. The lower the relative tax burden, the more competitive a provincial tax system is said to be.

Food Processing Industry

Basic Case

The Alberta corporate tax system ranks second in the basic case scenario with provincial tax payments at 40.5 per cent of cash flow before taxes. The most competitive tax system is that of Ontario, in which tax payments amount to 39 per cent.

Ontario's competitive advantage in the interprovincial ranking of tax systems originates from the lowest property tax estimate among the provinces compared. On the other hand, Quebec imposes the highest property tax which, coupled with substantial capital and payroll taxes, makes this province's tax system the least competitive.

Alberta ranks second, as a result of moderate property taxes and the absence of provincial commodity and capital taxes. The province of British Columbia ranks third due to relatively high property taxes, and significant commodity taxes levied on machinery and equipment.

The results of the basic-case simulation ranking the competitiveness of the provincial tax systems also hold for the comparison of total combined federal and provincial tax systems (see Chart 1 and Tables 1 and 2).

A separate comparison of specific provincial taxes (see Chart 1 and Table 7) indicates that the province of Alberta, although it has no sales tax, has the highest level of corporate income taxation among the provinces examined. There are two reasons for this high rate. First, the corporate income tax rate was recently increased from 11 per cent to 15 per cent. Second, the absence of other provincial taxes, which are a deductible item against income taxes, significantly enhances the share of corporate income tax in Alberta.

Provincial corporate income tax is a significant revenue-earning device in all provinces but Quebec, its proportion ranging from about 20 per cent of cash flow before taxes in British Columbia and Ontario to 23.5 per cent in Alberta.

Property tax is the next significant item on the tax list. Its proportion of cash flow before taxes ranges widely: from about 17 per cent in both Ontario and Alberta to 22.4 per cent in British Columbia, to a "heavy" 40.8 per cent in Quebec. Among other taxes, in Ontario capital tax amounts to 5.8 per cent of cash flow before taxes, whereas in Quebec its share is 9.2 per cent, larger than the share of provincial income tax. Quebec also imposes a payroll tax, which accounts for 3.4 per cent of cash flow before taxes.

Another substantial tax is the British Columbia retail sales tax. British Columbia, unlike Ontario and Quebec, does not exempt manufacturing machinery and equipment from this tax; thus, its share is relatively high, amounting to 6.3 per cent of cash flow before taxes.

Overall, in the provinces examined the corporate income tax and property tax are the largest items on the provincial corporate taxation list. There are small differences between shares of these taxes in Alberta, British Columbia and Ontario. In the case of Quebec, property taxes significantly exceed provincial income taxes. This is due to both a high annual property tax levy on a Quebec food processing plant and a very low income tax rate of 5.9 per cent in the province.

Variable Profitability Case

This sensitivity case assumes two revenue and raw material cost levels—a higher profitability case and a lower profitability case.[6]

Overall, the competitive ranking of the provincial tax systems under the variable profitability sensitivity simulation remains similar to that under the basic-case simulation. Ontario's tax system maintains first place in the ranking, Alberta holds onto second place, and British Columbia and Quebec follow in third and fourth spot, respectively (see Chart 2).

The cash flow profile of the food processing plant model is sensitive to changes, particularly at lower levels of profitability. Compared with the basic-case scenario, at a lower level of income the share of tax payments as a percentage of cash flow before taxes significantly increases for all the provinces examined. The size of this increase varies among provincial tax systems, and ranges from 17 to 19 percentage points with Quebec recording the largest change (see Table 7).

Among the specific taxes, all the provincially levied taxes, other than income taxes, are particularly strongly affected. For example, in Quebec the share of property tax rises from 40.8 per cent in the basic case to 56.4 per cent in the low-profitability case. Similarly, the share of capital tax in Quebec increases from 8.4 per cent to 10.8 per cent. These increases can be explained by the fact that non-income-based taxes are usually levied on fixed or less flexible components of the company's structure. Therefore, the low-profitability case will always tend to enhance the share of these taxes.

Financial Option

This sensitivity simulation assumes a typical 75 per cent/25 per cent debt-to-equity structure and a prime lending rate of 12 per cent. The analysis is based on the basic-case revenue and cost structure of the plant model (see Chart 3 and Table 8).

Under these assumptions, two provinces, Ontario and Alberta, share the most competitive tax systems. Ontario's tax system ranks first with provincial tax payments of 58.1 per cent while Alberta's tax system is second with payments of 64.1 per cent.

The ranking of Ontario's and Alberta's tax systems in terms of total federal and provincial tax payments remains unaltered.

Finally, the remaining provincial tax systems of British Columbia and Quebec rank a considerable distance from the leading provincial tax systems.

Petroleum Refining Industry

Basic Case

The results of basic-case simulation in the petroleum refining industry are quite different from those in the food processing industry. In the petroleum refining industry, the tax system of Quebec is the most competitive, provincial tax payments equalling 39.3 per cent of cash flow before taxes. The Ontario tax system follows closely with tax payments of 41.4 per cent.

The tax systems of Alberta and British Columbia follow the leaders at a considerable distance. Alberta ranks third with tax payments of 48.2 per cent, whereas British Columbia is the least competitive with tax payments of 56 per cent (see Chart 4 and Table 9).

In the petroleum refining industry, as in the food processing industry, the major factor in competitiveness of a provincial tax system is the level of income and property taxation.

As in the food processing industry, a separate comparison of provincial corporate income taxes in the petroleum refining industry shows that Alberta has the highest share of income taxation among the provinces examined. However, unlike other provincial tax systems, Alberta's tax system does not include any other form of corporate taxation except for property taxes.

In all provinces except Quebec, provincial corporate income tax accounts for the largest share of cash flow before taxes. Its share ranges from 24.6 per cent in Ontario to 26 per cent in British Columbia to 29.1 per cent in Alberta. Property tax is another important item, its proportion ranging from 7.3 per cent in Ontario, 11.6 per cent in Quebec, 19.1 per cent in Alberta to close to 20 per cent in British Columbia.

All the provinces except Alberta impose a commodity tax. British Columbia is the only province that applies the tax to machinery and equipment. Therefore, the share of commodity taxes in British Columbia's tax structure is significant, accounting for 10.3 per cent of cash flow before taxes in the basic-case scenario. In Quebec and Ontario, the share of commodity taxes is minor. On the other hand, these provinces levy significant capital taxes.

The comparison of total combined federal and provincial corporate tax systems reveals no change from the ranking of provincial tax systems (see Tables 1 and 2).

Variable Profitability Case

This sensitivity simulation assumes two different revenue levels—a higher profitability case and a lower profitability case.[7]

The competitive ranking of provincial tax systems under the higher profitability case remains similar to that under the basic case. Quebec and Ontario have the most competitive tax systems followed by Alberta and British Columbia (see Chart 5). However, a change in tax competitiveness takes place under the lower profitability case.

In the lower profitability case, the most competitive tax system is that of Ontario, with tax payments of 93.5 per cent of cash flow before taxes. Quebec ranks second at 104.5 per cent.

The primary cause of Quebec's drop in the tax competitiveness ranking is the structure of its tax system. To summarize, Quebec's tax system relies more on taxes that do not necessarily change in proportion to changes in income level. The capital, payroll and property taxes only partially depend on income level or are entirely based on fixed components of a company's structure. Consequently, in the lower profitability case, Quebec's share of these taxes significantly increases which makes its tax system less competitive compared with Ontario's tax system.

However, when total federal and provincial corporate taxes are compared, Quebec's tax system remains the most competitive. This is because the large sum of property, capital and payroll taxes is deducted from Quebec's taxable income, which significantly lowers the federal income tax bill. This reduction is large enough to assure that Quebec's total tax system remains the most competitive, although it is only slightly better than the Ontario federal and provincial tax systems combined.

Financial Option

This sensitivity simulation assumes a 15 per cent/85 per cent debt-to-equity structure and a prime lending rate of 12 per cent. The simulation is based on the base-case revenue and cost structure (see Chart 6 and Table 10).

This sensitivity simulation virtually confirms the results obtained under base-case scenario. The tax systems of Quebec and Ontario are the most competitive. Quebec's tax system ranks first with tax payments at 44.0 per cent of cash flow before taxes; Ontario follows closely with payments at 44.8 per cent.

The tax systems of Alberta and British Columbia follow at a distant third and fourth place, respectively.

Conclusions

Food Processing Industry

Overall, in the base-case scenario, the tax system of Ontario is the most competitive. Alberta's tax system follows Ontario's very closely and is second in the ranking. British Columbia's and Quebec's tax systems are relatively less competitive, consistently placing in the lower end of the ranking.

The main reason for the competitiveness of Ontario's tax system is its low property tax, whereas Alberta's tax competitiveness results from the absence of provincial commodity, capital and payroll taxes. Relatively high property taxes levied in British Columbia and Quebec, as well as the existence of substantial commodity taxes on capital assets in British Columbia and of capital tax in Quebec, make these tax systems less competitive.

The results of the variable profitability sensitivity simulation indicate that provincial tax systems are highly sensitive to profitability levels, particularly lower levels. At both higher and lower levels of profitability, the tax system of Ontario remains the most competitive, with Alberta a close second. Although at lower levels of profitability the ranking of provinces does not change, the share of corporate taxes in cash flow before taxes significantly increases, particularly in Quebec.

The mixed debt-to-equity financial option simulation does not provide any change to the competitive ranking of provinces discussed above.

Petroleum Refining Industry

Overall, in the base-case scenario, the tax system of Quebec is the most competitive. Ontario's tax system follows Quebec's very closely and is second in the ranking. Alberta's and British Columbia's tax systems are less competitive, consistently placing in the lower end of the ranking.

The main reasons for the competitiveness of Quebec's tax system are its relatively low property tax and very low corporate income tax rate, whereas Ontario's tax competitiveness stems largely from low property taxes. Relatively high property taxes levied in Alberta and British Columbia, as well as the existence of substantial commodity taxes on capital assets in British Columbia, make these tax systems less competitive.

The results of the variable profitability sensitivity simulation indicate that provincial tax systems are highly sensitive to profitability levels, particularly lower levels. At higher levels of profitability, the tax system of Quebec remains the most competitive, with Ontario following closely in second place. At lower levels of profitability, the ranking changes dramatically, with Ontario having the most competitive tax system and Quebec placing second.

The main reason for the decline in the ranking of the Quebec tax system in the lower profitibility case is its tax structure, which, unlike those in other provinces, emphasizes property, capital and payroll taxes. These taxes, in contrast to income taxes, do not vary in proportion to changes in taxable income; hence, at lower income levels their share increases significantly. The capital intensity of the petroleum refining industry, which is higher than that in the food processing industry, is an additional factor in the reduced competitiveness of Quebec's tax system.

Finally, financial option sensitivity simulation does not result in any change to the competitive ranking as discussed in the base-case scenario.

Footnotes

1 For a summary of this research see Jacek Warda and Tancredi Zollo, *International Tax Comparisons Compendium Report: The Competitiveness of Canada's Corporate Tax Structure*, Report 16-87 (Ottawa: The Conference Board of Canada, 1987).

3 To reduce the potential impact of the rule on projects with long construction periods, the capital cost allowance may be claimed starting 24 months after the date at which the capital asset was acquired.

3 In the food processing industry the telecommunications cost was estimated at 0.10 to 0.15 per cent of annual revenue, whereas in the petroleum refining industry this cost was estimated at 0.10 per cent of annual sales revenue.

4 The allowance for incremental R and D expenditures is not calculated in this study because of its minor impact.

5 The alternative would be the "stand-alone" case, which would consider the model plant as a free-standing, independent business. The industries analysed do not operate on this basis, and hence this scenario is not applicable.

6 High-profitability scenario is defined when the plant derives $75 million base revenue annually. Low-profitability scenario is when the plant makes $50 million base revenue annually, while base-case scenario assumes $62.5 million base revenue per year. Direct raw material costs (canola grain) are assumed to vary between 84 and 90 per cent, depending on the profitability scenario. Because canola oil production is limited by the supply of canola grain, the higher production (revenue) level will cause the canola grain market price to increase, thus raising raw material costs in the high-profitability scenario, and eroding some of the anticipated profits.

7 High-profitability scenario is defined when plant operates at 100 per cent capacity. Low-profitability scenario is associated with 75 per cent capacity, while base-case scenario assumes 85 per cent capacity. Direct raw material costs (crude oil) are about three quarters of revenue in each scenario.

Table 1
Summary of Competitive Ranking of Provincial Corporate Tax System in the Food Processing and Petroleum Refining Industries (Reformed Tax System)

	Food processing industry				Petroleum refining industry			
Province	BC	LP	HP	FO	BC	LP	HP	FO
Alberta	2	2	2	2	3	3	3	3
British Columbia	3	3	3	3	4	4	4	4
Ontario	1	1	1	1	2	1	2	2
Quebec	4	4	4	4	1	2	1	1

BC = Basic case
LP = Lower profitability case
HP = Higher profitability case
FO = Financial option case

Table 2
Summary of Competitive Ranking of Total Federal and Provincial Tax Systems in the Food Processing and Petroleum Refining Industries (Reformed Tax System)

	Food processing industry				Petroleum refining industry			
Province	BC	LP	HP	FO	BC	LP	HP	FO
Alberta	2	2	2	2	3	3	3	3
British Columbia	3	3	3	3	4	4	4	4
Ontario	1	1	1	1	2	2	2	2
Quebec	4	4	4	4	1	1	1	1

BC = Basic case
LP = Lower profitability case
HP = Higher profitability case
FO = Financial option case

Table 3
Canadian Corporate Tax System Applicable to Food Processing Plant and Petroleum Refining Plant

Item	Rate
Federal (post reform)	
General corporate income tax rate (%)	28
Manufacturing and processing tax deduction (%)	5
Manufacturing income tax rate (%)	23
Surtax (%)	3
Investment tax credit (%)	-
Research and development tax credit (%)	20
Inventory allowance (%)	-
Capital cost allowance (%)	
- Class 3 (buildings)	4
- Class 8 (equipment)	20
- Class 29 (machinery and equipment)	25
Commodity taxes	
- construction	8
- other	12
Alberta	
General corporate income tax rate (%)	15[a]
British Columbia	
General corporate income tax rate (%)	14
Retail sales tax (%)	6
Ontario	
General corporate income tax rate (%)	15.5
Manufacturing and processing tax deduction (%)	1
Capital tax (%)	0.3
Retail sales tax (%)	8
Quebec	
General corporate income tax rate on active business income (%)	5.9
Capital tax (%)	0.48
Retail sales tax (%)	9
Payroll tax (%)	3.2175

[a]After 1989

Table 4
Property Tax Estimates

	Petroleum Refining Plant	Food Processing Plant
Alberta		
County of Strathcona–1988	$4,958,000	$376,500
Tax Escalation:	+5% for 6 years +2% for 12 years +5% for balance	+5% for 6 years +2% for 12 years +5% for balance
British Columbia		
Burnaby–1988	$5,771,000	$560,800
Tax Escalation:	+2% a year	+2% a year
Quebec		
Sainte-Foy–1988	$2,613,500	$788,230
Tax Escalation:	+5% a year	+5% a year
Ontario		
Mississauga–1988	$1,640,000	$224,240
Tax Escalation:	+5% a year	+5% a year

Table 5
Forecast Average Annual Escalation Rates of Output and Costs: Food Processing Industry
(percentage)

Item	Rate
Output	5.0
Raw materials	4.5
Administration	4.5
Maintenance	4.5
Labour	4.5
Capital assets	4.5

Table 6
Forecast Average Annual Escalation Rates of Output and Costs: Petroleum Refining Industry
(percentage)

Item	Rate
Output	4.0
Raw materials	3.0
Administration	5.0
Maintenance	5.0
Labour	5.0
Capital assets	3.0
Other	5.0

Table 7

Corporate Taxes as a Percentage of Accumulated Net Cash Flow Before Taxes: Food Processing Plant, Reformed Tax System (Discount Rate: 5 Per Cent)

	Alberta			British Columbia			Ontario			Quebec		
Specification	BC	LP	HP	BC	LP	HP	BC	LP	HP	BC	LP	HP
Corporate income taxes												
Federal	35.9	38.6	36.0	33.8	35.7	34.0	35.8	38.6	35.8	27.1	26.7	28.0
Provincial	23.5	25.5	23.4	20.6	21.9	20.7	20.6	21.8	20.7	5.3	4.6	5.6
A. Subtotal	59.4	64.1	59.4	54.4	57.6	54.7	56.4	60.4	56.5	32.4	31.3	33.6
Commodity taxes												
Telecommunications	0.6	0.8	0.5	0.6	0.8	0.5	0.6	0.8	0.5	0.6	0.8	0.5
Federal	1.0	1.4	0.9	1.0	1.4	0.9	1.1	1.4	1.0	1.0	1.4	0.9
Provincial	–	–	–	6.3	8.7	5.7	1.1	1.6	1.0	1.3	1.8	1.2
B. Subtotal	1.6	2.2	1.4	7.9	10.9	7.1	2.8	3.8	2.5	2.9	4.0	2.6
Other provincial and local taxes												
Capital tax	–	–	–	–	–	–	5.7	7.3	5.3	8.4	10.8	7.9
Payroll tax	–	–	–	–	–	–	–	–	–	3.4	4.6	3.0
Property tax	17.0	23.4	15.2	22.4	30.9	20.1	11.6	16.0	10.4	40.8	56.4	36.7
C. Subtotal	17.0	23.4	15.2	22.4	30.9	20.1	17.3	23.3	15.7	52.6	71.8	47.6
Total corporate taxes												
(A+B+C) of which:	78.0	89.7	76.0	84.7	99.4	81.9	76.5	87.5	74.7	87.9	107.1	83.8
Provincial and local taxes	40.5	48.9	38.6	49.3	61.5	46.5	39.0	46.7	37.4	59.2	78.2	54.4
Cash flow after taxes	22.0	10.3	24.0	15.3	0.6	18.1	23.5	12.5	25.3	12.1	–7.1	16.2

BC = Basic case
LP = Lower profitability case
HP = Higher profitability case

Table 8

Corporate Taxes as a Percentage of Accumulated Net Cash Flow Before Taxes: Food Processing Plant, Debt/Equity Financial Option: (75 per cent/25 per cent), Reformed Tax System, Basic Case

Specification	Alberta	British Columbia	Ontario	Quebec
Corporate income taxes				
Federal	41.2	36.9	41.3	24.2
Provincial	27.6	23.0	22.7	3.0
A. Subtotal	68.8	59.9	64.0	27.2
Commodity taxes				
Telecommunications	1.2	1.2	1.2	1.2
Federal	2.1	2.1	2.1	2.1
Provincial	–	12.7	2.3	2.6
B. Subtotal	3.3	16.0	5.6	5.9
Other provincial and local taxes				
Capital tax	–	–	9.6	14.1
Payroll tax	–	–	–	6.8
Property tax	34.4	45.3	23.5	82.7
C. Subtotal	34.4	45.3	33.1	103.6
Total corporate taxes				
(A+B+C) of which:	106.5	121.2	102.7	136.7
Provincial and local taxes	62.0	81.0	58.1	109.2
Cash flow after taxes	–6.5	–21.2	–2.7	–36.7

Table 9

Corporate Taxes as a Percentage of Accumulated Net Cash Flow Before Taxes: Petroleum Refining Plant, Reformed Tax System (Discount Rate: 5 Per Cent)

	Alberta			British Columbia			Ontario			Quebec		
Specification	BC	LP	HP	BC	LP	HP	BC	LP	HP	BC	LP	HP
Corporate income taxes												
Federal	41.9	75.5	34.5	40.2	70.3	33.7	42.6	78.5	34.7	38.6	66.7	32.5
Provincial	29.1	56.1	23.2	26.0	48.6	21.0	24.6	43.5	20.5	6.1	5.3	6.3
A. Subtotal	71.0	131.6	57.7	66.2	118.9	54.7	67.2	122.0	55.2	44.7	72.0	38.8
Commodity taxes												
Telecommunications	0.2	0.6	0.1	0.2	0.6	0.1	0.2	0.6	0.1	0.2	0.6	0.1
Federal	0.4	1.3	0.2	0.4	1.3	0.2	0.4	1.3	0.2	0.4	1.3	0.2
Provincial	–	–	–	10.3	32.5	5.3	0.5	1.5	0.3	0.5	1.6	0.3
B. Subtotal	0.6	1.9	0.3	10.9	34.4	5.6	1.1	3.4	0.6	1.1	3.5	0.6
Other provincial and local taxes												
Capital tax	–	–	–	–	–	–	9.0	25.5	5.4	14.3	40.2	8.5
Payroll tax	–	–	–	–	–	–	–	–	–	6.8	20.7	3.3
Property tax	19.1	60.6	9.9	19.7	62.4	10.2	7.3	23.0	3.8	11.6	36.7	6.3
C. Subtotal	19.1	60.6	9.9	19.7	62.4	10.2	16.3	48.5	9.2	32.7	97.6	18.1
Total corporate taxes												
(A+B+C) of which:	90.7	194.1	67.9	96.8	215.7	70.5	84.6	173.9	65.0	78.5	173.1	57.5
Provincial and local taxes	48.2	116.7	33.1	56.0	143.5	36.5	41.4	93.5	30.0	39.3	104.5	24.7
Cash flow after taxes	9.3	–94.1	32.1	3.2	–115.7	29.5	15.4	–73.9	35.0	21.5	–73.1	42.5

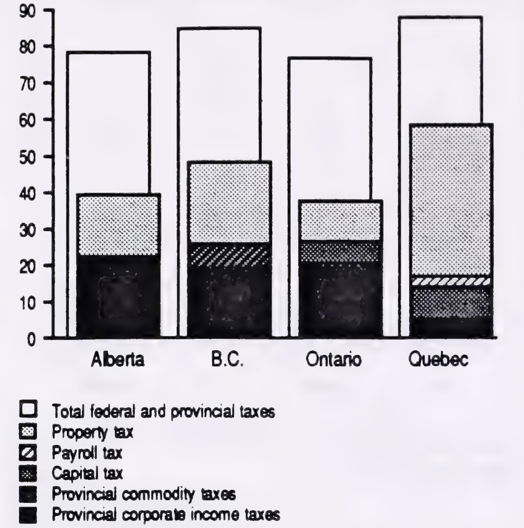
BC = Basic case
LP = Lower profitability case
HP = Higher profitability case

Table 10

Corporate Taxes as a Percentage of Accumulated Net Cash Flow Before Taxes: Petroleum Refining Plant, Debt/Equity Financial Option (15 per cent/85 per cent), Reformed Tax System, Basic Case

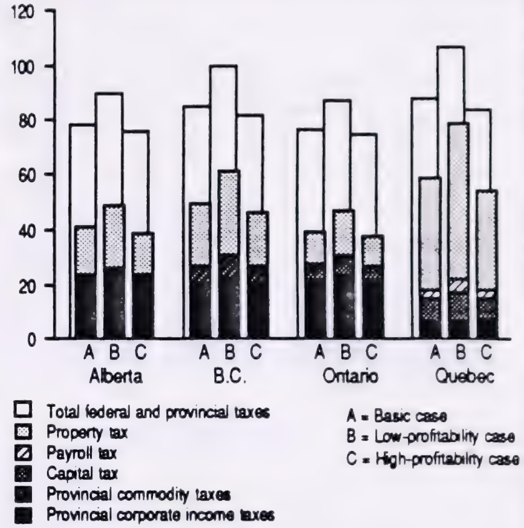
Specification	Alberta	British Columbia	Ontario	Quebec
Corporate income taxes				
Federal	43.8	41.8	44.7	40.1
Provincial	30.7	27.3	25.6	5.8
A. Subtotal	74.5	69.1	70.3	45.9
Commodity taxes				
Telecommunications	0.2	0.2	0.2	0.2
Federal	0.5	0.5	0.5	0.5
Provincial	–	11.9	0.5	0.6
B. Subtotal	0.7	12.6	1.2	1.3
Other provincial and local taxes				
Capital tax	–	–	10.2	16.2
Payroll tax	–	–	–	7.9
Property tax	22.3	23.0	8.5	13.5
C. Subtotal	22.3	23.0	18.7	37.6
Total corporate taxes (A+B+C) of which:	97.5	104.7	90.2	84.8
Provincial and local taxes	53.0	62.2	44.8	44.0
Cash flow after taxes	2.5	–4.7	9.8	15.2

Chart 1
Interprovincial Comparison of Tax Systems: Food Processing Industry—Reformed Tax System, Basic Case (tax payments as a percentage of accumulated cash flow before taxes)



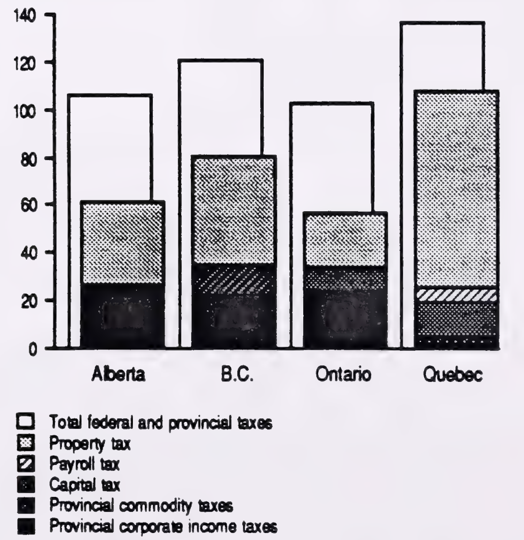
Source: The Conference Board of Canada

Chart 2
Interprovincial Comparison of Tax Systems: Impact of Changes in Profitability Level in Food Processing Industry—Reformed Tax System (tax payments as a percentage of accumulated cash flow before taxes)



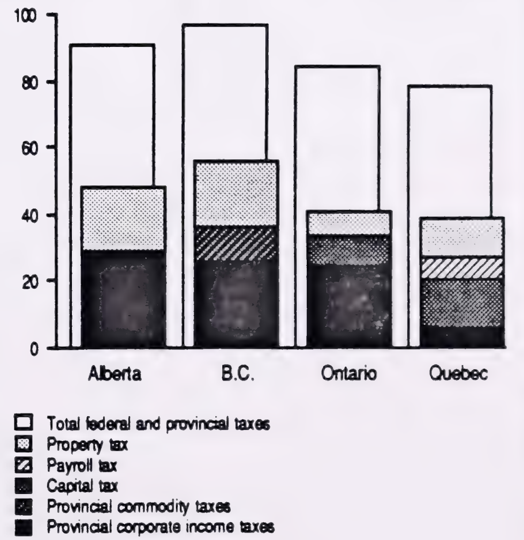
Source: The Conference Board of Canada

Chart 3
Interprovincial Comparison of Tax Systems: Impact of 75 per cent/25 per cent Debt/Equity Financial Option on Tax Payments in Food Processing Industry—Reformed Tax System, Basic Case (percentage of accumulated cash flow before taxes)



Source: The Conference Board of Canada

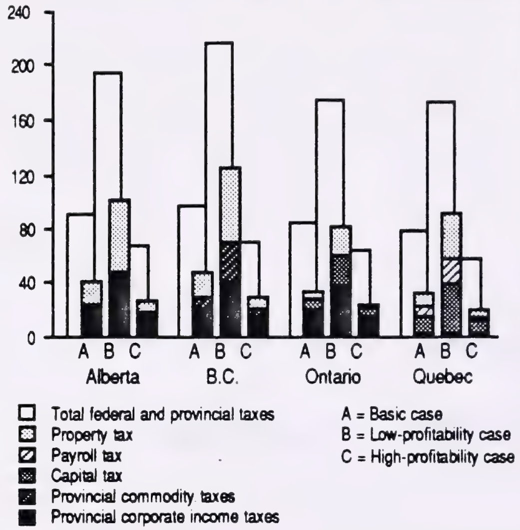
Chart 4
Interprovincial Comparison of Tax Systems: Petroleum Refining Industry—Reformed Tax System, Basic Case (tax payments as a percentage of accumulated cash flow before taxes)



Source: The Conference Board of Canada

Chart 5

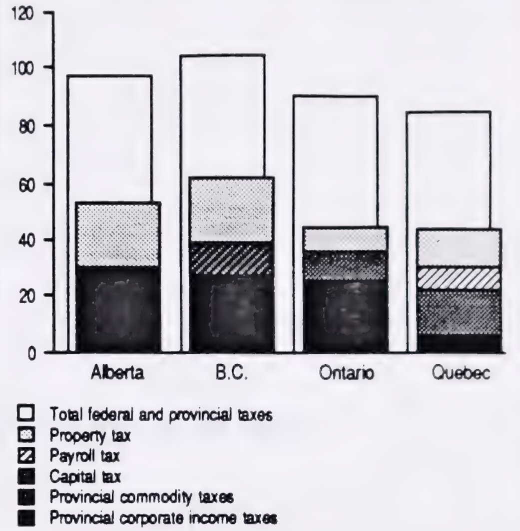
Interprovincial Comparison of Tax Systems: Impact of Changes in Profitability Level in Petroleum Refining Industry—Reformed Tax System (tax payments as a percentage of accumulated cash flow before taxes)



Source: The Conference Board of Canada

Chart 6

Interprovincial Comparison of Tax Systems: Impact of 15 per cent/85 per cent Debt/Equity Financial Option on Tax Payments in Petroleum Refining Industry—Reformed Tax System, Basic Case (percentage of accumulated cash flow before taxes)



Source: The Conference Board of Canada

APPENDIX IV

MUNICIPALITIES USING SPLIT MILLRATES IN 1986

MUNICIPALITIES USING SPLIT MILLRATES IN 1986

Municipality		Class	Municipal Mill Rate	% Variation From Residential Mill Rate
Cities				
Airdrie		non-res	15.20	19.9
		res	12.68	-
Calgary		non-res	86.8369	40.0
		res	62.0178	-
	(1987)	non-res	16.0484	37.3
		multi-res	15.2556	30.5
		res	11.6913	-
Camrose		non-res	18.30	6.7
		res	17.15	-
	(1987)	non-res	19.47	9.3
		res	17.82	-
Edmonton		non-res	36.34	53.5
		vac-res	23.68	-
		multi-res	27.43	15.8
		res	23.68	-
	(1987)	non-res	22.11	74.4
		vac-res	22.11	74.4
		multi-res	17.86	40.8
		res	12.68	-
Grande Prairie		non-res	19.38	49.3
		other res	18.80	44.8
		res	12.98	-
Leduc		non-res	20.00	42.9
		res	14.00	-
	(1987)	non-res	18.59	36.8
		res	13.59	-
Lethbridge		non-res	17.4850	42.4
		multi-res	16.2760	32.5
		res	12.2800	-
Medicine Hat		non-res	12.4380	121.4
		multi-res	7.9930	42.2
		res	5.6190	-
Red Deer		non-res	10.88	10.1
		res	9.8790	-

Municipality		Class	Municipal Mill Rate	% Variation From Residential Mill Rate
Spruce Grove		non-res	13.58	10.3
		res	12.31	-
		farm land	12.31	-
	(1987)	non-res	7.66	-
		res	7.66	-
		farm land	7.66	-
Wetaskiwin		non-res	13.00	14.2
		res	11.38	-
Towns				
Athabasca		non-res	14.07	3.7
		res	13.57	-
Barrhead		non-res	14.69	19.2
		res	12.32	-
Beaverlodge		non-res	10.49	30.3
		res	8.05	-
Brooks		non-res	11.164	7.9
		res	10.347	-
Canmore		non-res	18.37	14.5
		res	16.05	-
Carstairs		vac-res	22.37	24.8
		non-res	19.21	7.1
		res	17.93	-
Cochrane		non-res	11.15	36.8
		res	8.15	-
Didsbury		non-res	8.52	39.9
		res	6.09	-
Drayton Valley		non-res	18.26	15.8
		res	15.77	-

Municipality	Class	Municipal Mill Rate	% Variation From Residential Mill Rate
Edson	non-res	13.79	20.2
	res	11.47	-
Grand Centre	non-res	14.97	7.2
	res	13.97	-
Granum	non-res	15.18	8.3
	res	14.02	-
Hanna	non-res	19.817	6.8
	vac-res	19.817	6.8
	res	18.563	-
High Level	non-res	17.871	24.5
	res	14.354	-
Lac La Biche	non-res	23.473	25.3
	res	18.730	-
Olds	non-res	16.20	14.1
	vac-res	16.20	14.1
	res	14.20	-
Penhold	non-res	18.236	40.7
	multi-res	15.494	19.6
	res	12.957	-
Ponoka	non-res	10.82	4.8
	res	10.32	-
Provost	non-res	21.00	31.3
	res	16.00	-
Redwater	non-res	14.50	7.4
	res	13.50	-
Rimbey	non-res	7.804	34.5
	res	5.804	-
Slave Lake	non-res	19.80	43.5
	res	13.80	-
Smoky Lake	non-res	8.99	27.7
	res	7.04	-

Municipality	Class	Municipal Mill Rate	% Variation From Residential Mill Rate
St. Paul	non-res	61.00	3.4
	res	59.00	-
Three Hills	non-res	15.92	9.6
	res	14.52	-
Vegreville	non-res	16.19	3.2
	res	15.69	-
Vulcan	non-res	25.00	17.0
	vac-res	24.88	16.4
	res	21.37	-
Westlock	non-res	12.95	18.3
	res	10.95	-
Whitecourt	non-res	12.96	62.8
	res	7.96	-
Villages			
Bittern Lake	non-res	45.15	24.5
	res	36.26	-
Boyle	non-res	12.68	19.8
	res	10.58	-
Eaglesham	non-res	19.94	21.3
	res	16.44	-
Kitscoty	non-res	9.62	10.3
	res	8.72	-
Myrnam	non-res	10.001	7.8
	res	9.277	-
Ryley	non-res	35.25	9.3
	res	32.25	-
Stirling	non-res	41.36	138.4
	vac-res	41.36	138.4
	res	17.35	-

Municipality	Class	Municipal Mill Rate	% Variation From Residential Mill Rate
Wabamum	non-res	7.88	41.2
	res	5.58	-
Summer Villages			
Nakamum Park	vac-res	9.57	63.9
	res	5.84	-
Parkland Beach	non-res	26.927	37.7
	res	19.552	-
Sunset Point	non-res	10.20	96.2
	res	5.20	-
Val Quentin	non-res	13.90	56.2
	vac-res	13.90	56.2
	res	8.90	-
Yellowstone	non-res	9.20	119.0
	res	4.20	-
School Districts and Rural			
Banff School District No. 102	non-res	0.980	10.1
	res	0.890	-
Jasper School District No. 3062	non-res	3.26	24.9
	res	2.61	-
County of Grande Prairie No. 1	non-res	11.15	34.7
	farm land	8.87	7.1
	res	8.28	-

non-res - non-residential (includes industrial/commercial property, power and pipeline, and other miscellaneous properties

res - residential

multi-res - multi-family residential

vac-res - vacant residential

APPENDIX V

ALBERTA INDUSTRIAL PROPERTY TAXATION TASK FORCE
ISSUE GUIDELINES FOR THE WORKING GROUP

ALBERTA INDUSTRIAL PROPERTY TAXATION TASK FORCE
ISSUE GUIDELINES FOR THE WORKING GROUP

(July 31, 1987)

1. Total Industrial Tax Burden

- Determine to what degree industrial property taxation in Alberta is competitive with other selected provinces by calculating taxes across Canada for 3 model properties.

- Determine the total tax burden including "overhead taxes" (property, business, sales, capital and payroll taxes) and federal/provincial corporate income taxes based on a normal return on investment for these model properties. Compare the impact on total tax burden of varying degrees of profitability.

- Produce the calculation above comparing "overhead taxes" to profitability for the 3 model properties assuming no assessment of M&E.

- Present various combinations of changes which would provide a stable regimen of industrial taxation in Alberta and make it competitive with other Provinces. Assemble arguments for and against each, including impacts on taxation revenues.

- Provide list of factors affecting industry competitiveness.

2. School Foundation Program

- Outline the operation and the revenue history of this program fund, including the rationale of the fund and the Property Tax Reduction Act. Determine what proportion of total Provincial education funding this represents.

- Develop arguments for and against this type of tax. Suggest alternatives to the School Foundation Tax, and what levels of tax would be required to generate equivalent revenues.

3. Municipal Taxation and Finance

- Examine levels and trends in property taxation in Alberta separating them into M&E, other non-residential, residential and business taxes. Determine reasons for these tax changes (eg. changes in assessment practices, increased mill rates, growth/expansion of assessment base).

- Examine the pros and cons of using typical machinery and equipment assessment and taxation versus business assessment and taxation. Determine the related impacts on municipal cost sharing (equalized assessment) and requisitions.

- Document inequities and inconsistencies of equalized assessment process in Alberta. Develop model properties to demonstrate existing problems, and suggest alternative solutions to these problems.

- Suggest categories for breaking down total municipal costs that would provide meaningful comparisons between similar Alberta municipalities.

4. <u>M&E Assessment & Taxation</u>

   - Develop a discussion paper on assessment and taxation of machinery and equipment including a comparison with other jurisdictions. Utilize available studies by other provincial government groups and published papers. Include a summary of the arguments for and against the principle and the impact of removal of M&E assessment on various taxing bodies. This impact should be examined in terms of mill rate increases on the remaining property tax base in various municipalities, ie: indicate the tax changes for all classes of assessable property.

5. <u>Split Mill Rate</u>

   - Set out the operation of split mill rates and indicate the extent to which they are currently being used.

   - Examine what effects split mill rates have on industry and municipalities, and suggest alternative solutions.

6. <u>Assessment Practices</u>

   - Identify and document problems with existing assessment procedures (eg. inconsistencies, non-uniformity), particularly relating to obsolescence. Review approaches used in other provinces (eg. B.C. study on obsolescence). Suggest alternative methods.

   - Note: Issue of assessment exemptions for self provided services on industrial properties (eg. sewer and water) is currently being addressed by Municipal Affairs. For this reason, the Working Group is directed not to do any further work in this area.

7. <u>Reserves/Surpluses (Municipalities and School Boards)</u>

   - Examine and document nature of reserves and surpluses in selected municipalities and school boards; why reserves have been developed and the intended purpose of the reserves/surpluses.

   - Examine and document existing accounting practices, suggests alternative policy guidelines, and determine if any limits should be placed on reserves.

8. Municipal and School Capital Financing Policy

   - Document existing capital financing program guidelines/policies established by Education and Municipal Affairs.

   - Identify any problem areas and recommend alternative solutions.

9. Supplementary School Requisition

   - Determine the rate of increase in school costs, in the supplementary requisition and in the cost per pupil between jurisdictions in Alberta and other provinces.

10. Education Quality/Costs

   - Examine factors affecting costs in Alberta and other provinces (eg. number of districts, pupil-teacher ratios, salaries, cost per pupil, etc.).

   - Note: Alberta Education is planning to release a White Paper on Financing of Education sometime in the fall which will address issues of education costs, quality of education, and methods of financing education costs in Alberta. For this reason, the Working Group is directed not to do any further work in this area other than outlined above. However, depending on the timing of the release of the White Paper, this document may be reviewed as part of the Task Force study.

11. Comparison of Service Levels

   - Examine levels and trends of municipal spending. Compare per capita spending between jurisdictions in Alberta and to relevant jurisdictions in other provinces. Determine if there are major differences in mandated services between types of municipalities or between similar municipalities in different provinces where large per capita spending differences are revealed.

   - Determine the estimated value of municipal services provided to industry in selected jurisdictions in Alberta and other provinces.

12. Funding from Higher Levels of Government

   - Identify and assess present methods of funding provided to local jurisdictions (including School Boards) by higher levels of government which offset property taxation.

APPENDIX VI

STUDY COMMITTEE ON EQUALIZED ASSESSMENT
SUMMARY OF RECOMMENDATIONS

STUDY COMMITTEE ON EQUALIZED ASSESSMENT
SUMMARY RECOMMENDATIONS

The Study Committee on Equalized Assessment was established by the Chairman of the Assessment Equalization Board in order to consider and respond to three criticisms of equalized assessments made by both municipal spokesmen and ratepayers namely:

(a) equalized assessments are not generally understood;

(b) municipalities and ratepayers believe they have no input into the process;

(c) equalized assessments are generally seen as a control function for requisitions.

The Committee submitted it's report to the Honourable Julian Koziak, Minister of Municipal Affairs, who released it for general distribution in 1983.

Recommendations of the Committee and present status are as follows:

The Equalization Process: Simplification and Timeliness

(i)	The system for calculating and reporting equalized assessment be computerized in 1984 for production of 1985 equalized assessment.	Completed for equalization year 1986.
(ii)	Annexations and municipal incorporations be effective on January 1st of the year following the date of the order.	No change. Usually made retroactive to the first part of the current year.
(iii)	The School Act be amended to permit the declaration of separate school support to be made in advance of the effective date of annexation.	A universal form prescribed in the new School Act may influence the transferability between municipalities.

Improving the Assessment Equalization Process

(i)	Machinery and equipment be made taxable in all circumstances and included in the determination of equalized assessment.	No change. Municipalities continue to exempt this type of property from taxation through a bylaw.
	Assessment for business taxes continue to be excluded from the determination of equalized assessment.	No change recommended.

(ii)	Equalized assessment used for apportionment purposes be calculated as the average value of the equalized assessment determined for that year and the previous two years.	No change. Recommendation not accepted.
(iii)	For purposes of the School Foundation Program, a vacant residential parcel owned by an Alberta resident who owns no other residential property in the Province be exempt from the Foundation tax levy.	All qualified vacant residential land is now exempt from the School Foundation levy.
(iv)	Adjustments for construction cost differentials between Edmonton and other areas of the province not be made.	No change recommended.
(v)	The equalized assessment continue to be reported at twenty percent of the full value.	No change recommended. (The Board will attempt to raise the level to 65% on its motion for the 1990 equalization year.
(vi)	Residential land in summer villages be equalized on the same basis as other residential land, according to its market value.	Implementation halted midway in 1984. Alternatives are now being studied.
(vii)	The data used in the calculation of equalized assessment be subjected to audit.	No formal audit procedures have been put in place. Computerization has minimized the concern.

The Assessment Cycle

(i)	The Department of Municipal Affairs undertake a comprehensive feasibility study to determine the costs and identify the benefits of maintaining actual assessments on a current basis.	Work is being done toward accomplishing annual "general" assessments by the year 1995.

Review of Equalization

(i)	A municipality should have the right to request the Assessment Equalization Board to review its equalized assessment before it is officially confirmed by Board Order.	Change initiated in 1986 with the mailing of computerized work sheets to municipalities. A thirty day review period is permitted.

(ii)	The decision of the Assessment Equalization Board may be appealed to the Assessment Appeal Board or to a specially constituted appeal tribunal.	Decisions of the Assessment Equalization Board remain appealable to the Alberta Assessment Appeal Board.
(iii)	Requisitioning authorities should have the right to appeal an equalized assessment which affects the apportionment of its requisition. The grounds for appeal should include explicit consideration of the equity of any apportionment based on the equalization.	The new School Act permits a sharing agreement to be drawn between school jurisdictions based on criteria other than the resident student count.
(iv)	All adjustments in requisition resulting from a successful appeal be accounted for in the requisition of the following year if it is impractical to do so in the current year.	The Municipal Taxation Act has now been amended to permit adjustment in the following year.
(v)	The appellant authority shall inform all local collecting and requisitioning authorities that can be affected by an appeal that an appeal has been lodged.	The Alberta Assessment Appeal Board now advises all affected school jurisdictions of upcoming appeals.
(vi)	With the unanimous consent of all concerned, the requisitioning authority and the municipalities should have the right to determine an apportionment of a shared cost on other criteria as well as equalized assessment; to use only part of the equalized assessment or to ignore equalized assessment altogether.	No change. Recommendation not accepted.

Equalized Asssessment as a Control

(i)	All existing policies, agreements and regulations be amended to eliminate the use of equalized assessment or equalized mill rates as expenditure control mechanisms.	Regulations under the School Act have been amended to comply. Other policies, agreements or regulations are unknown.

Apportionment of Linear Property Assessments

(i)	Apportionment of linear property assessment be made in the manner described in Appendix A to the Report.	No change to this date. This procedure remains open for discussion and implementation.

(ii)	The valuations of Alberta Government Telephones prepared by the Chief Provincial Assessor be apportioned in the same manner as linear property assessments made under the Electric Power and Pipeline Assessment Act.	Alberta Government Telephone linear properties are now apportioned in the same manner for equalization purposes.